MACDONALD COLLEGE JOURNAL

VOLUME 4
No. 10

JUNE
1944

Farm · Home · School

It Is False

to believe that tomorrow will never come. It will come inevitably, and with it all the uncertainties and problems of a new world. You prepare for tomorrow when you become a policyholder of the

SUN LIFE OF CANADA

SULFORON
for Spraying or Dusting

A SULPHUR SPRAY THAT WILL NOT CLOG THE NOZZLE . . .

SULFORON is completely wettable—stays in suspension — penetrates the downy covering of young fruit and the underside of leaves — gets right down to the skin and acts QUICKLY. Controls mildew, scab, brown rot, rust and other fungoid diseases. Can be used as spray or dust. Ten pounds makes 100 gallons of effective spray. Your local dealer sells SULFORON in 6 lb. and 50 lb. bags.

CRYOLITE *Lead Arsenate* **PERENOX** *Bluestone* **PARMONE** *Paris Green* **NICOTINE SULPHATE 40%** *Calcium Arsenate*

CANADIAN INDUSTRIES LIMITED

FERTILIZER CANADIAN INDUSTRIES C-I-L LIMITED **DIVISION**

Halifax • Montreal • Toronto • Chatham, Ont. • New Westminster, B.C.

"I like *rolling my own* with

British Consols

CIGARETTE TOBACCO"

THE MACDONALD COLLEGE JOURNAL

Co-ops Look Back Over 100 Years

Along with farm journals everywhere we join in a tribute to the Rochdale Weavers who, a hundred years ago, pioneered the first successful co-operative business. Their simple and moving story (see page 16) has been an inspiration to depressed people in forty countries. The movement that began in a little store which sold only flour, salt, oatmeal and sugar, has grown to one that owns oil wells, pipe lines and refineries, flour and feed mills, ships, canneries, chick hatcheries, saw mills and factories. Co-operatives produce as well as distribute. They promote insurance, health protection and rural electrification. Their retail sales in this country last year ran close to three-fourths of a billion dollars.

And their achievement is not only economic. Throughout the years, they have exerted a wholesome influence on business in general in keeping commerce free and in reminding all enterprise of the interest of the consumer. They have taught countless people a practical means of working together that has carried over into splendid efforts for community welfare. In a century of increasing individualism they have consistently emphasized the necessity of people co-operating to solve their problems.

We salute a truly great achievement!

LOOKING AHEAD

But a centennial is an occasion for looking forward as well as back — and the co-operative movement needs wise leadership to meet opposition that is growing in some quarters.

The reason for some of this opposition is that the co-operatives have done a good job. In many cases by eliminating waste and providing good service they have bound their members so closely together that no competitive business can successfully challenge their position. At the same time increasing competence has opened up new fields to them.

But some of the criticism of co-operatives is the result of their departure from the basic principles of the movement. In some cases they are not true co-operatives at all — but competitive business taking advantage of the co-operative privileges. A case has recently reached the courts in the United States and the decision favoured the co-operative but in so doing it defined again the basis of co-operative business and set a standard by which co-operative enterprises in future will be judged.

In Canada criticism has been levelled against the exemption of patronage dividends from profits tax. The co-operatives are on safe ground as long as they adhere to the Rochdale principles. Such co-operatives are not profit-making organizations. They are not formed to exploit anybody or any group. Neither are they socialistic organizations in the political sense. But co-operators work for the evolution of a society in which service is the dominant motive in industry.

Brief on National Radio

Supporting the principle of publicly-owned national radio, H. H. Hannam, president and managing director of the Canadian Federation of Agriculture and Dr. W. H. Brittain of Macdonald, representing the Canadian Association for Adult Education, presented a joint brief to the Select Committee of the House of Commons on Radio Broadcasting on June 1st.

Contending that any weaknesses in the C.B.C. have been due to the faults of management and direction which can be corrected without any departure from the principle of publicly owned radio, the brief urged the necessity of a strong Board of Managers responsible to the people through Parliament.

Speaking before the Committee both Mr. Hannam and Dr. Brittain affirmed the great value of such programs as the Farm Radio Forum and the Citizens Forum — and complimented the C.B.C. Staff for their co-operation with rural and urban groups.

It may well be that this timely and forceful presentation has come at the right moment to preserve the type of radio service which rural people especially, have so much appreciated.

Our Cover Picture

The picture on our cover this month was snapped from the slopes of Abbotsford Mountain by Edward Fisk, one of our graduates and a member of the Abbotsford apple growing clan.

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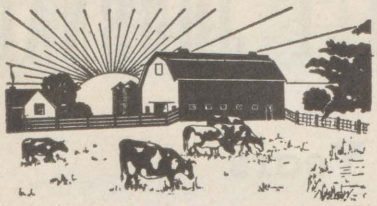


AGRICULTURE

Articles on problems of the farm

Apple Thinning

by A. N. Nussey

The practice of fruit thinning is a very old development; it was mentioned in literature published as long ago as 1768. Considerable research work has been carried out on the subject and today fruit thinning is a recognized orchard practice of many growers in the fruit growing areas of Canada and the United States. With many successful growers fruit thinning ranks equal in importance to spraying, pruning and soil fertilization.

Thinning is the removal of a portion of the fruit from the tree before maturity, in order to prevent overbearing and to improve its general marketability.

Perhaps the most important advantage resulting from thinning is an increase in size of fruit. Under favorable conditions of fruit bud formation, pollination and setting, many varieties of apples are likely to overbear in some years. Very often the result is fruit of small size and poor grade. A large apple requires from 30 to 50 leaves to nourish and develop it to maturity, therefore, with heavy yields the average number of leaves per fruit runs much short of this requirement. Thinning adjusts the crop to the ability of the tree to support it.

Thinning also has a favorable influence on color, but it does not affect color as strikingly as size. The production of color is also influenced by other practices, such as pruning and therefore the effect of thinning is complicated and not always in accordance with expectation. Therefore, although thinning does influence the development of color in apples it is doubtful whether it would be a sound practice to thin for color alone.

In years of a heavy crop thinning reduces breakage of the limbs. This damage is sometimes very serious and necessitates the placing of props under the limbs for support which in itself is a costly procedure. The weight of the crop as it approaches maturity produces a tremendous leverage on the branches, and the danger of injury, especially in the presence of high or sudden winds is very great. Where the practice of thinning is carried on a better distribution of the crop is obtained which the tree is more able to carry.

A properly thinned tree has most of its defective fruits removed early in the season, hence the handling costs at harvest time are greatly reduced by reason of the elimination of the undersized and defective fruits. Such fruits greatly increase the costs of grading and packing without bringing a corresponding return. A crop in which 75 per cent will go in the upper grade with only a few culls, is much less expensive to handle than one that runs less than 50 per cent in the upper grade with a large proportion of culls. In almost all fruit growing sections where thinning has become a common practice the saving in expense of handling the crop is considered to be large enough to cover the cost of thinning.

In thinning the apple stem is grasped by thumb and forefinger and the apple is pushed off with the other fingers.

Thinning Does Not Decrease Total Yield

Unless carried to extremes thinning does not decrease the total yield of fruit. Careful tests have indicated that there is little, if any, influence on total yield; some growers have even claimed an increase. Thinning certainly increases the total yield of *marketable* fruits and the proportion of such fruit that packs in the upper grades. These are two factors which are of direct concern to the grower.

While the greatest emphasis has been placed on the immediate influence of thinning on the fruit, the effects on the tree are of equal importance. Fruit thinning will not increase the vigor of the tree but it will preserve it. Fruit bearing is a devitalizing process, and the most robust apple tree may become weakened by a series of heavy crops. The degree to which a tree can withstand the exhaustion due to a heavy yield of fruit, in each case, is in proportion to the vitality of the individual tree. The usual consequences of overbearing are a decreased vegetative growth, smaller leaves and reduced fruit bud formation. Hence, thinning a heavy bearing tree would induce better fruit

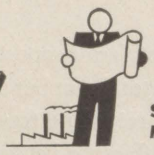
(Continued on page 28)

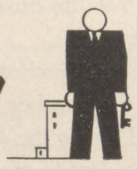
WHO *wants Inflation?*

NOT I, SAYS THE WORKER

NOT I, SAYS THE HOUSEWIFE

NOT I, SAYS THE FARMER

NOT I,  SAYS THE MANUFACTURER

NOT I,  SAYS THE LANDLORD

NOT I, SAYS THE MERCHANT

If no one wants inflation—then why worry?

Here's why. .Though we all agree that inflation would be disastrous, we don't all see how our individual actions affect the cost of living. Inflation is likely to come about as the total result of little things, none of which seems important in itself.

When any one of us, for example,

buys a little more than we need for current use;
asks slightly higher prices for what we have to sell;
presses for an increase in our pay;
offers to pay a bit more than legal prices;

we are inviting inflation into our homes.

These are the little things which, added together, result in a rising cost of living. We all say we don't want inflation. But, lip-service is not enough. The responsibility rests on every Canadian—whether housewife, farmer, worker, landlord, manufacturer or merchant to keep down the cost of living.

This advertisement is one of a series being issued by the Government of Canada to emphasize the importance of preventing further increases in the cost of living now and deflation later.

The Apple Situation

by J. E. Lattimer

A combination of circumstances appear to have conspired to bring apples into front page news. Apple orcharding in Canada has recently become quite a specialized line of activity. Everyone is more or less aware of this recent development. Yet the report of the 1941 Census just recently released records the extent of this specialized development. The census of 1941 records the number of fruit and vegetable farms. Farms with over 50 apple trees are included in this group. The total of this group in round numbers is 50,000. As there were in 1941, 732,715 farms in all it follows that only one farm in every 14 was classed as a fruit and vegetable farm.

In 1931 the number of farms reporting orchard trees was 222,172. At that date the total number of farms was 728,623. The proportion of farms recording trees in 1931 was almost exactly one-third. The difference between 1931 and 1941 is partly explained by the new classification as it is clear that a great number of farms may and do have some orchard trees but the number may be less than 50.

Commercial orcharding has expanded while the farm orchard has declined in importance in recent decades. This explains the reason for the new classification in the last census. The main reason for this development has been the increased care necessary in apple orcharding in later years. The need for special soil, special care and changed technique generally, has developed apple orcharding into a specialized line. The results of the trend is recorded in the different census years.

Number of Trees

While commercial orchards have expanded the total number of apple trees has declined in recent decades. The following records may be of interest.

Number of Apple Trees in Canada

		Change
1901	15,053,875	
1911	16,217,176	+1,163,301
1921	12,462,332	—3,754,844
1931	10,821,342	—1,640,990
1941	8,440,976	—2,380,366

Since 1911 there has been a great reduction in the number of apple trees. During the decade from 1911 to 1921 and also during that between 1931 and 1941 hard winters were responsible for killing many apple trees particularly in some sections and some varieties. Yet allowing for this the general trend is downward due primarily to the disappearance of the small farm orchard.

Concentration

The concentration of apple orcharding in areas of suitable soil and climate is a feature that census figures reveal.

Number of Apple Trees

	1901	1911	1941
Canada	15,053,875	10,821,342	8,440,976
P.E.I.	202,100	110,127	68,270
N.S.	1,975,575	2,182,947	1,815,841
N.B.	675,364	404,637	299,551
Que.	2,025,113	1,533,032	1,704,213
Ont.	9,541,619	4,288,674	2,916,004
B.C.	391,644	1,709,628	1,440,990

This abbreviated table records the tendency toward concentration provincially. It does not record the concentration within the provinces which is also marked. From the table it may be noted that apple growing is pretty well concentrated in Nova Scotia, Quebec, Ontario and British Columbia. Within those provinces concentration has also been taking place. Apple orcharding is centered in three counties of the Annapolis Valley in Nova Scotia, in four or five counties of Quebec and in the Okanagan Valley in British Columbia. In Ontario there are quite a number of counties with good commercial orchards. Yet the business is nothing like as widespread as in earlier years.

It may be noted that Quebec Province was only one recording an increase in the number of trees in 1941 over the previous census year. During the decade many trees were winter killed. It was also a decade of greatly expanded plantings.

Production

Production has not fallen off in anything like the proportion of the decrease in number of trees. In fact from census reports the total production which was recorded as 19 million bushels in round numbers for 1900 was given as 16 million in 1930. In 1940 the commercial crop was recorded by another source at 12 million bushels. This did not include production that was not marketed. It appears that total production has not declined much since 1901. Yet during that time the population has become two and a half times as great. The production of apples per capita has declined tremendously.

Production per capita varies from section to section. Population is not dense where apples are grown. Both Nova Scotia and British Columbia are surplus areas. Hence people in the central provinces as well as on the Prairie depend more or less on apples from the Annapolis Valley of Nova Scotia or the Okanagan in British Columbia.

The areas of specialization and the location of the people make transportation the big factor in distributing apples. Both Nova Scotia and British Columbia cater to and count on the export market to relieve them of their surplus in normal times. In fact the loss of the export market when war started led to apples being called the first agricultural war casualty.

Tall Tales

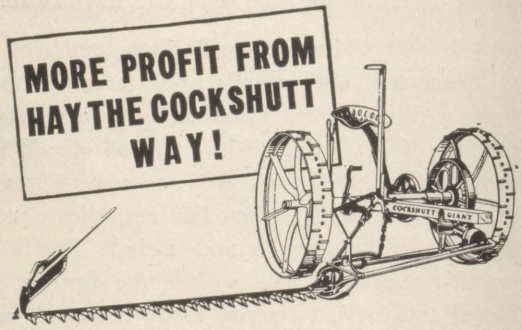
Since that time a great change has occurred if we may believe market reports. The weekly review of the fruit and

(Continued on page 19)

Get Hay that's WORTH MORE..for FEED..for MARKET

● You just keep on going . . . making extra dollars out of good weather, out of sweeter, rightly-cured hay . . . when you harvest with Cockshutt Haying Equipment. For efficiency, dependability and longer service, it pays you well to choose Cockshutt quality every time!

IMPORTANT: Sale of farm implements is still limited by Government rationing. If you can keep your present equipment in operation by prompt repairs, using Genuine Cockshutt Parts, by all means do so. If, however, your need is urgent, make an application through your Authorized Cockshutt Dealer, for a permit to buy. Use his services for either repair or replacement. He is ready to serve you in every way possible.



COCKSHUTT No. 8 GIANT MOWER

For many years the Cockshutt No. 8 Giant Mower has enjoyed a reputation for doing a better job and for exceptionally light draft. Careful machining of parts, perfect balance, simple design and rugged construction all combine to make the No. 8 Giant one of the most satisfactory mowers built.

Internal gear principle . . . rigid frame construction . . . design of connection between the Cutter Bar and Frame Hanger which allows the cutter bar to follow the level of the land freely and eliminates back lash . . . absence of side whipping on pole . . . are just some of the features that will make you like the Cockshutt No. 8 Giant.

COCKSHUTT PEERLESS RAKE

The Cockshutt Peerless Rake does a clean quick job. Its money-saving reversible features give double life service and have special appeal to thrifty farmers. The Peerless is strong and dependable. It's Cockshutt quality with a double value.

COCKSHUTT No. 3 SIDE DELIVERY RAKE and TEDDER

Turns up the hay butts to dry faster. Trussed rigid steel construction assures long-lasting strength. Simple raking adjustments. Light draft. Does an easy, clean job without dragging the hay.

COCKSHUTT HAYLOADER

Cockshutt No. 2 or No. 3 Hayloaders pick up cleanly and quickly from swath or windrow without shredding. Build high loads easily. Get your hay into the barn while it is high in feeding value.

COCKSHUTT

PLOW COMPANY LIMITED

BRANTFORD

SMITHS FALLS
MONTREAL TRURO

WINNIPEG REGINA CALGARY
SASKATOON EDMONTON

Short Term Pastures

by L. C. Raymond

We are now well into another pasture season and at time of writing it doesn't look as if the very wet season of 1943 is likely to be repeated. Rather we may expect a return to our usual midsummer moisture shortage with a marked drop in herbage growth and likewise in the milk flow. While there are many other factors affecting pastures, the most distinct limitation results from our short moisture supply.

Different parts of the province vary considerably both in the supply of rainfall and also in heat — the latter producing a great difference in the loss of moisture through evaporation. The western part of Quebec in what may be termed the greater Montreal district is the one which feels the two factors of heat and moisture to the greatest extent. In this section most of the farm land is tillable and natural permanent pastures are neither as common or as useful as in the cooler and more moist parts. While no universal type of pasture can be found in any one district, this western Quebec area uses most commonly the so-called rotational pasture where the pasture is a part of the regular farm rotation and following one or two years of hay the meadows are given over to one or two years of pasture before being again broken and cropped. While these rotational pastures have the clear advantage of being cheap to establish, there is a considerable question whether they are really the cheapest in the long run. The alternative is a short term pasture where a specific area of the farm is set aside and handled solely as pasture. Such a type is adapted best to drier sections and tillable land, and the following discussion will be applicable mainly to such situations.

As has already been mentioned, the long term or permanent pasture in these drier parts has given way to the rotational type chiefly because such old pastures, almost regardless of the treatment given, rather quickly revert to less productive kinds of grasses and clovers, and with inadequate moisture are really very low yielding. But what of the rotational pastures? Are they entirely satisfactory? It should be clearly stated at once that the management followed with particular reference to fertility has a great deal to do with their value as pastures. Where the practice is followed of top-dressing the meadows in the hay years, the pastures following can be reasonably good but the alternative scheme of applying all the manure to the hoed crop and starving the grassland does not result in good grazing.

Rather the sward is usually thin — mostly timothy — and one that dries out quickly. The seeding angle also offers some difficulties. An attempt is made to seed down at the one time for both hay and pasture. Usually the hay is fairly well provided for, but the pasture is incidental. It frequently happens that the better the hay crop the poorer the pasture. This is particularly true where red clover forms a large part of the mixture or in years specially favourable to the red clover. This year, for example, following the good clover year of 1943, the two-year old meadows are very thin indeed and will produce a poor, weedy crop.

The short term pasture presupposes pasture as a crop, not as an incidental. Surely by this time we are fully conscious of the value of good pastures. Briefly outlined, it means setting aside an area of tillable land, preferably one that will not dry out too quickly and one that is as close to the barns as possible. The size required will depend somewhat on other possible farm grazing but should be roughly one-half to three-quarters of an acre for each productive cow to be pastured. For best management the area should be divided into at least three fields which will be freshly seeded to the most suitable mixture in successive years — for example, field No. 1 may be seeded in 1944, field No. 2 in 1945, and field No. 3 in 1946. Such a practice makes pasture just another crop where it can be given the attention and importance it deserves. The plan spreads the work and makes it possible to use grasses and legumes which do not fit into the combined hay-pasture plan.

Mixtures and Management

Space will only permit brief reference to such questions as mixtures, cropping and grazing management. The mixture of grasses and legumes used should be as far as possible fitted to the soil type and natural moisture supply of the particular location. For example, a good one for a high dry situation would include alfalfa and brome grass as the main species since the former is very deep rooted and the latter seems to do very well under limited moisture supply. Moderately moist fields such as those that get some of the run-off from higher lands can make good use of that relatively new clover, *ladino,* which provides excellent grazing under suitable conditions. Many possible pastures sites flood in the spring and may often be very moist. Here a grass known as reed canary may take a prominent place in a mixture. Red and alsike clover and timothy should also find a place in such short term pasture mixtures. The point sought here is that the mixture should be designed for the situation and for immediate grazing.

Cropping and grazing management are of almost equal importance to the mixture seeded. The value of thorough preparation cannot be over-stressed. Preparation of the

field for seeding in any one year should be begun no later than early August of the year before. Of the three fields mentioned, the oldest one is naturally the one to be prepared. If this is grazed till the end of July the bulk of the year's production will have been removed. It should then be ploughed and kept worked for the balance of the summer which will usually mean two or three diskings. Careful attention should be given to fertility. Both barnyard manure and commercial fertilizer will usually best meet the situation — again in accordance with the soil's need. Seeding should be undertaken as early in the spring as possible using oats as a nurse crop at a heavy rate — at least three bushels.

Grazing management is the next question. Under normal conditions such a seeding will be ready to graze in about five or six weeks from seeding, i.e. when the oats have reached a height of six inches. Many people are fearful of turning cattle onto a newly seeded field such as this, but there is no occasion to be alarmed if reasonable precautions are observed. Admittedly it cannot be grazed too heavily at the start. The oats will provide a good bite and should be taken down quickly and then given a chance to recover for a second grazing. By late mid-summer — given reasonable moisture — the new seeding should be well established, but grazing on this field should not be too heavy at any time during the seeding year. Actually by grazing in the seeding year one gets a far better chance of a balanced establishment. The early removal of the nurse crop is altogether favourable to the young sward and by controlled grazing the various components of the mixture can be kept in their best relationship e.g. clover and alfalfa can be prevented from, as it were, running away with the situation.

When the short term pasture scheme is fully established, there will then be available in any one year one field fresh seeded, one that is a year old and one that is two years from seeding. The productive stock should be rotated between the three fields, the two older ones being sufficient to carry the stock till the new seeded field is ready for grazing. Management should aim to keep the herbage in an actively growing condition, so that fresh young material is available. The stock will not likely make an entirely clean job of each field before leaving for the next one. The mower should be used freely to remove anything left by the cattle.

No attempt has been made to give any very definite recommendations in the above comments. The idea has been rather to present a plan whereby pastures may be given the prominent place that they deserve. By following such a plan the larger and more productive grasses and legumes may be utilized fully for pasture purposes. The labour required and actual cost will be higher, but the returns will justify the increased outlay. If we are to avoid poor summer pastures some such scheme as this must be brought into operation.

"HE WON'T SCARE AWAY RUST & ROT"

Your farm property is too valuable to you and to your country at war to leave it to the tender mercies of wind, weather, frost and Father Time. It needs the protection of the best quality paint. And, in these days of wartime conservation of materials, every gallon of paint must give you the utmost in coverage, hiding power and long life protection. That means using Sherwin-Williams Paints, for your farm buildings, house, implements and fences. Inside the house, too, you'll need Sherwin-Williams because they beautify as well as protect; ask your Sherwin-Williams Dealer to lend you his illustrated Paint & Colour Style Guide — it's chock full of good ideas on decoration.

Consult your local Sherwin-Williams Dealer

THE SHERWIN-WILLIAMS CO.
of Canada, Limited
Head Office MONTREAL

Don't Break the Bat, Give the Bat a Break

by W. E. Whitehead

Not a year goes by without one hearing of someone having been engaged in an encounter with a bat. The someone is often the lady of the house, who, upon opening a dimly lighted clothes closet, is "attacked" by the "ferocious" animal that usually ends up in her hair. This is followed by panic and the individual is terrified of bats for ever after. So the story goes. Requests for information on the control of bats are of annual occurrence so that a consideration of these little animals, already too familiar to some, may be of interest and possibly help to dispel some of the mythical ideas regarding their habits.

The bat, often called a flittermouse, is too commonly considered to be an animal of superstition and ill-omen; even its appearance as it hangs, head down, from a rafter in a barn or attic, is repellant to some. In the Old World, it is associated with the belfry, the cloister and the ruined abbey, while in illustrations depicting Hallowe'en it accompanies the witches as they ride through the air on their brooms, adding to the eerie atmosphere that is supposed to prevail on this occasion. The wool of a bat is one of the ingredients of the Witches' Cauldron in Shakespeare's *Macbeth*. With all this as a backround it is little wonder that most popular references to bats deal only with their bad habits, some of which are ill-founded, or even fictitious. It is true that some bats have bad habits, but they are mostly tropical species and that should be no reason for condemning all members of the order. The abhorrence for bats is based chiefly upon the fact that one occasionally finds its way into a dwelling. During the hours of darkness it does its best to find a way out; during the day it hides in some place where the light is subdued. It should provide an opportunity for becoming better acquainted with the bat; it is also the time when trouble usually begins.

One accusation against the bat is that it carries bedbugs, in fact some infestations of this insect have been attributed to this source. This is not true, although the bat does carry a bug that resembles and is a first cousin to the bedbug, but which lives only on the bat. Most animals, including man, have parasites. It is not unusual for humans to be attacked by dog fleas, but we do not advocate the killing of all dogs.

Another mistaken idea is that bats enter houses and attack people by sucking their blood. The vampire of South America is a blood-sucker, but this habit cannot be held against Canadian species of bats. We might accuse bats of being fruit-eaters, but neither does this fact apply to those found in Canada. One also hears the statement that bats are ugly, do not look nice, are clammy and dirty. Such charges are probably made by people who have not been near enough to a bat to know what it does look like. There are many objects in nature that have a less pleasing appearance than a bat, but still they are tolerated, and as for being clammy that is untrue, since the body is covered with hair and the membranous wings are dry. Some seem to be definitely afraid of the little animal. Men repairing a roof will sometimes find one asleep beneath the shingles, and even their stout hearts quail before the sinister apparition; they quietly tip-toe away for fear of disturbing it.

So far, only those things have been cited which have made bats repellant. What can be said in their favour? Item for item favourable evidence is much less, nevertheless, the good our local bats do far outweighs any harm. The one outstanding good deed attributed to Canadian bats is that they are insect feeders. During the warm summer twilight and through the night while bats are performing their aerial gymnastics, they are catching insects and their ravenous appetites account for considerable numbers of them, a large proportion of which are destructive, or at least cause annoyance to man. It may be argued that beneficial insects are destroyed too, but few in this category fly at night. Probably the most useful legendary task assigned to a bat is when Shakespeare had Ariel use one as a steed in *The Tempest*. In music, Strauss composed an operetta, *The Bat*.

During Biblical times, bats were either included among "birds" or among the "creepers on all fours". Actually they are mammals; they bear hair, a mammalian characteristic and this covers the entire body except the wings which are membranous; these replace the fore limbs of other vertebrate animals. At the "wrists" hooks are located which assist the bat in clinging to objects. The hind limbs are short and are partly enclosed in the wing membranes which extend round the posterior end of the body; they assist the animal in shuffling about and bear sharp claws by which the bat suspends itself when at rest. "Blind as a bat" is an adage probably coined by one who was unfamiliar with the animal. It is understood that sight is not well developed and it is probable that other senses play a more important role during flight, nevertheless, small, beady, black eyes are present. Some bats have greatly developed ears, others have special nasal processes,

Ugly-but he grows dollars

The growth in "dollars" to you depends on how fast this pig reaches market weight. Ordinary feeding won't do it. "Miracle" Hog Feeds however, contain all the essential ingredients for rapid growth! Feed "Miracle" Hog Feeds and watch your pigs come fast and strong right from the start . . . then watch the "dollars" grow!

If it's "Ogilvie" it's good!

"MIRACLE"
HOG FEEDS

44-5

THE OGILVIE FLOUR MILLS COMPANY LIMITED

indicating that hearing and smell play an important part in their mode of life.

The family life of the bat differs with the species. Some are gregarious, others solitary. Young are born during the summer and cling tenaciously to the female parent who carries them around with her on her aerial excursions and continues to do so until they become too heavy. At the end of summer some bats migrate to warmer climes for the winter, others hibernate and live upon fat stored in their bodies; the completeness of the dormancy corresponds to some extent with the temperature.

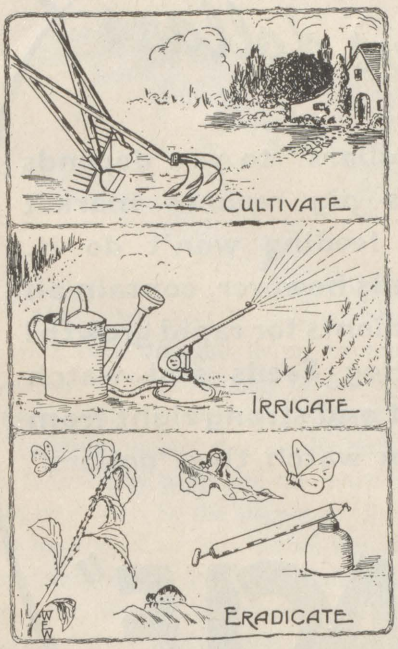
So ladies, the next time you find a little mouse-coloured creature suspended by his coat-tails near your hat-box, or in the cupboard where Johnny keeps his playthings, give him a break. If you don't like him, shut him in and call for help; remember he is just as displeased at seeing you (if he can) as you are in discovering him. If you do disturb him get out of his way, or, if he should get into your hair, keep calm, remember he is neither a dive-bomber nor a blood-sucker, but is there by accident, not by design. He will get tangled up and make a bit of a fuss, but put on a leather glove, relieve him of his difficulties, and release him out-of-doors. Don't use your bare hand as he will bite in self-defense, as any self-respecting animal will that has a good set of teeth. It is usually necessary to catch bats by some means when they get indoors, as they are not educated to the "shooing" method. Difficulty is sometimes experienced in excluding bats from dwelling as they are able to squeeze through surprisingly small openings. On the other hand, there may be certain obvious points of entry that should be closed after the animals have left for the evening's activity. A better understanding of the bat should convince us that he is not such a bad fellow after all.

Ontario's New Milk Act

An amendment to the Ontario Milk Control Act, passed at the recent session of the Ontario Legislature, gives legal status to the collection of fees for the milk producer associations, by making it compulsory for distributors to deduct the fees from the regular milk cheques of each patron. This practice has been in effect on a voluntary basis for about ten years in most of the fluid milk marketing areas. The principle of the Bill also has existed for seven years in the Farm Products Marketing Act of the province, which provides for a similar method of fee collections for such organizations as the cheese producers, and various fruit and vegetable growers' organizations, as well as the tomato growers.

Summer Work in the Victory Garden

by H. R. Murray



The question of irrigation for the victory garden is not very important at first, except where it concerns the transplanting of certain crop plants, such as cabbage, cauliflower and tomatoes. However, as the season advances and the weather becomes warmer and dryer, all victory gardeners should investigate their watering facilities and have them ready for the time that they will be needed.

For the best results in growth and quality, the garden will have to be watered during dry spells, but, at this point, note carefully that *frequent light waterings do more harm than good;* such waterings do not supply enough moisture to penetrate to the roots of the plants, but provide enough to encourage the development of plant disease and the germination of weed seeds. Therefore, it is necessary each time water is applied to apply the equivalent of one inch of rain or 1,600 gallons for a garden 25 x 100 feet. This is equal to a good, heavy half day's rain and should be applied every week or ten days, depending upon the type of soil, the temperature and of course the general dryness of the season.

The lighter types of soil dry out much faster than the heavier types and moisture is lost much more quickly during hot windy spells.

Many of our victory gardeners may feel that the need for irrigation is being over stressed. They will fully appreciate the vital need for water, however, if they will but consider that the greater part of a plant's tissue in its fresh state is composed of water. This is especially so in the case of vegetables — especially those intended for consumption in the raw state, such as cabbage, endive, lettuce, celery, radishes, cress, etc. The best quality is always crisp and succulent, so that the cells of the tissue must be gorged with moisture in order to be crisp, succulent and flavourful or delectable.

If it were possible to say that any one factor is most important for plant growth, then water is that one. It is the only medium through which the plant may be fed. All mineral elements taken from the soil must be in solution with soil moisture and all plant foods made in the plant only move to areas of use when in solution.

However, as previously pointed out, too much moisture will water-log the soil and fill up the air spaces, thus robbing the plant roots of their oxygen.

The best equipment for watering the garden is a hose and a sprinkler. However, if this means of watering is not available a shallow drill may be made on each side of the row of plants — in much the same way as it was made for the supplemental application of commercial fertilizers. Then using a watering can, with the sprinkler removed, apply between eight to 10 gallons on each side of each row. The drill may be filled in the next day.

Recognizing Prime Maturity

The time to harvest vegetables in order to have the highest quality is largely determined by their stage of growth. Quality in vegetables is of great importance to victory gardeners and varies widely, according to the kind of crop grown, weather conditions and the cultural care given.

Peas, sweet corn, and snap beans lose their quality very rapidly after harvesting and should be prepared for the table as soon as possible after removal from the plants. High temperatures hasten the ripening processes, also the processes responsible for deterioration. Harvest, therefore, should not be delayed until these vegetables have reached full maturity.

The root crops, such as radishes, carrots, beets and turnips give best quality if harvested when comparatively small. There is a definite relationship between size and quality; the smaller the roots (within reason), the higher the quality.

During periods of hot or wet weather, early cabbage and head lettuce will become worthless in a short time. These should, therefore, be harvested as soon as the heads are firm and compact. Cauliflower also deteriorates rapidly and should be cut as soon as the heads are of good size and are well blanched.

Spinach should be cut when six leaves or more have been formed, that is if it has been properly thinned. If the spinach has not been thinned, cut it just as soon as there are signs of seed stalks developing in the centre of the plants. Use a knife and sever the tap root about ¼ inch just below the ground.

Fall cabbage and celery will stand light frost but should be harvested before severe weather sets in. Early potatoes may be harvested just as soon as the tubers are large enough to be edible; late potatoes should be dug before the rainy days of autumn. For the best quality, parsnips should not be harvested until they have had time to develop some sugar in their roots by being exposed to

the cool days of early fall. A few parsnips may be left in the ground all winter for harvesting in the early spring. It is advisable however to have a small quantity in storage for use during the winter.

Some Common Insects

So far we have dealt with the most common sorts of insects, such as cutworms, flea beetles, cabbage maggots and cabbage worms. The remaining more common insects which are likely to trouble the victory gardener are the potato beetle, the blister beetle and the cucumber beetle.

Potato beetles — both the adults and the so-called grubs — will devour the potato leaves and, unless controlled, will prevent the plant from producing a crop. These beetles are so well-known that they need no description. If the potato plot is small, it is possible as well as advisable to remove the adult beetles by hand as they appear and then destroy them. If these old bettles are consistently destroyed, much of the egg-laying will be eliminated. However, in spite of this hand picking, a few adults are bound to escape destruction and will lay eggs in small masses underneath the leaves. If at all possible, crush as many of these egg masses as can be found. At the same time, be on the look-out for the first signs of the freshly hatched young beetles, or grubs. These grubs will first feed on the tender leaves of the growing tips. This is the best and easiest time to destroy them, because they are grouped together and, as yet, have had little or no chance to start eating. Furthermore, it becomes increasingly difficult to destroy these grubs as they become larger.

As soon as young potato bugs are in evidence, the plant should be sprayed thoroughly with a poison spray or dusted with a poisoned dust. Use calcium arsenate 1½ to 4 lbs. in 40 gallons of water, to be applied as a spray; or 10 per cent calcium arsenate gypsum or hydrated lime dust; or a commercial Bordeaux dust, "Copotex," to be applied as a dust. "Copotex" will also give protection against a disease known as blight.

Our second likely pest, the blister beetles, will eat hungrily at the leaves of many plants — especially beans. It is an elongated, rather long-legged, somewhat soft bodied insect of a dark metallic color and varying in size. Thorough dusting with derris dust will keep this ravenous pest under control.

All curcurbits are very susceptible to attack from the striped cucumber beetle, a small oblong insect about ¼ inch long, quite active and with black and yellow stripes. The main injury is done by the overwintered or hibernated adults attacking and chewing the young and tender plants as they emerge from the ground. Just as soon as the curcurbit plants are through the ground they must be covered with a poisoned dust such as 10 per cent calcium arsenate mixed with hydrated lime or gypsum dust. This dust should be applied to the plants when they are wet with dew. Cucumber beetles also spread bacterial wilt of curcurbits.

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DEPARTMENT OF AGRICULTURE

Activities, Plans and Policies of the Quebec Department of Agriculture

Departmental Policies – Continued

Animal Husbandry Service—Veterinary Division

Veterinarians of the Provincial Service are available to give help and advice to owners of livestock throughout the province. Vaccinations, inoculations, blood test, etc. are made in some cases free and for a nominal charge in others. Specialists in animal and poultry diseases and in nutrition give freely of their time and advice in an effort to keep Quebec's livestock in the best possible condition and to avoid the outbreak of any serious epidemic.

Rural Economics Service—R. Ferron, Chief
Division of Co-operation

The Rural Economics Service offers aid and advice to agricultural co-operatives and syndicates. Each co-operative is entitled to a grant of 1½% of the value of farm products sold through the co-operative, up to a maximum of $100.00. In addition, in certain special cases, a co-operative which is faced with the necessity of raising capital may have a loan guaranteed by the Division. This, however, is done only when the need is urgent and the amount of money set aside to cover these guaranteed loans is not large.

In order to obtain the 1½% grant the co-operative must fulfil the following set of conditions:

1. Must be organized according to the law governing co-operatives.
2. There must be at least 25 producer-members, each of whom owns at least one $50.00 or $100.00 share.
3. The co-operative must have a three-year buying and selling contract with its members.
4. New members must be accepted on the same conditions as the original members.
5. Interest on capital shares must never be paid at a rate higher than the prevailing rate of interest.
6. A sufficient sum must be allotted to reserves each year.
7. Profits must be distributed as patronage dividends.
8. Constant efforts must be made to enlist new members.
9. Plant and stock must be kept adequately insured.
10. The secretary-manager must be bonded.
11. Bookkeeping must be adequate and accurate.

To have a loan guaranteed by the Division, the co-operative must give the government a first mortgage on its property and transfer its fire-insurance policies. The loan must not be negotiated at more than 4% and must be repaid in not more than 5 years. No loan will be guaranteed for a society that does not operate in accordance with the usual regulations, nor for one whose secretary-manager is not bonded. No loan will be guaranteed for more than 60% of the value of the mortgage given.

Techanical Assistance

Experts in co-operation in nearly every agronomic district are ready at all times to give advice and help. They assist the regional agronome in organizing new co-operatives and supervise their operations. They set up an accounting system and instruct the secretary in his duties, audit the books at the end of the year, report on the progress of the co-operative to the directors, see that the interests of the members are being properly looked after and in general see that the co-operatives are being properly managed.

Division of Marketing and Surveys

Production: Surveys are carried out to determine what parts of the province are best suited to various types of production. Unit values for different products are figured out and reasons are sought for the success or failure of production on farms in similar or in different regions.

Distribution: Costs of distribution are determined; analyses are made of markets, i.e., a survey is made of supply and demand on different markets, possible future expansion of each market is estimated and forecasts are given as to the possibility of meeting increased demand.

Consumption: An effort is made to determine what the consumer wants, so that production can be directed to meeting the demands of the consumers. An effort is also made to determine the most popular foods in different parts of the province. In addition to the above, many other problems concerned with the economics of agriculture are studied.

This Division is also responsible for issuing crop reports and marketing information, and interprets the regulations of the Wartime Prices and Trade Board concerning price ceilings, etc. At the end of the season the Division collaborates with the Bureau of Statistics in compiling the statistics of production during the past season.

Horticulture Service—J. H. Lavoie, Chief

This service has responsibility for providing assistance of all kinds for growers of truck crops, fruits, tobacco, etc. throughout the province. These services can best be summarized under the following headings:

Truck gardening: The Horticulture Service encour-

ages formation of growers' associations, professional organizations of truck farmers and junior truck farmers' co-operatives. It helps to establish gardens for fishermen, introduces new species and kinds of garden crops, operates breeding grounds for fruit bushes, organizes production centres for the raising of vegetable seeds, and gives advice and assistance in the construction of greenhouses and root cellars.

Fruit growing: Demonstrations are arranged where the latest information on fruit growing is passed on to the growers. The Service takes a great interest in the activities of the Quebec Pomological Society and aids it financially and otherwise. Group purchases and sales are arranged for apple growers in isolated districts, a pomological centre has been established in Baie des Chaleurs, and a research station has been set up in the Montreal district.

Ornamentals: Plans are prepared and demonstrations given on the beautifying of parks, etc. Ornamental plants and shrubs are tested for hardiness and the organization of local horticultural societies is encouraged.

Tobacco: Demonstrations on the proper handling of the tobacco crop are given, land for tobacco planting is cleared and purchases of tobacco seed are arranged. The Division also gives its assistance to a number of tobacco planters' co-operatives. New varieties are tested and experiments on fertilizing, rotation, and the value of windbreaks are carried out.

Potatoes: Potato production centres have been and are still being established throughout the province and demonstration plantings are made where different potato diseases can be seen and studied. Information concerning the value of certified seed is always being given and bonuses for the purchase of certified seed are provided. Research on varieties, fertilizer practices, spray programmes, etc., is carried out and forms the basis of advice to growers. The inspection service inspects sorting machines, potato diggers, and certifies the crop of farmers growing potatoes for seed purposes.

Maple products: This Division has the responsibility for the grading of maple products.

Canning crops: Information on canning and preserving is given, with advice on the construction of canning factories large and small and methods of canning and preserving fruits and vegetables. The Food Laws as they apply to these products are enforced.

Apiculture: Inspections are made to see that the laws governing honey production are being complied with, colonies are inspected, diseased colonies are destroyed and the owners recompensed. Field days are organized and beekeepers' associations are helped.

Marketing and inspection: Laws concerning grading, packing and marketing of horticultural products are explained and inspections made to see that they are being obeyed. The Division collaborates with the Canadian Council on Foods and interpretes the various war-time regulations which are made from time to time.

Sundry: Investigations are carried out and information is made available to those interested in special crops such as mushrooms, cranberries, hops, blueberries, herbs and medicinal plants.

Dodder – A Menace

Those who are unfortunate enough to have dodder-infested land should be following a programme aided at reducing the dodder content of their soil and preventing any live plants from producing more seed.

When dodder seed germinates it emerges from the ground as a short, pale yellowish, hairlike vine which quickly coils itself around the nearest plant. Wherever contact between the two plants is made the dodder attaches itself to its host plant and proceeds to suck its juice. It secures its entire nourishment in this way and its root system soon dries up. The dodder will soon grow into a tangled mass of orange coloured strands wrapping themselves around the plants on which they are growing. The small white flowers appear in from four to six weeks which later develop into seed-bearing capsules. It is the seed which constitutes a serious menace, for they are difficult to remove from small-seeded farm crops, and the dodder seed may live in the soil for twelve years or even longer.

Dodder may be introduced on a farm in one or more of the following ways: in ungraded seed, flax, clover and alfalfa particularly; in soil adhering to the feet of workers, or animals, to wagon, car or tractor wheels, to farm implements, all of which have been in contact with infested land. Dodder may be carried on to your farm in a threshing mill which has not been thoroughly cleaned, in a seed drill used to sow impure seed, in the clothing of workers or by birds. Animals fed on hay from infested land may spread the seeds by their manure. Any hay, straw, seed, screenings or manure from an infested farm may carry live dodder seeds. If you should find dodder, secure advice at once from the nearest Experimental Farm or Agricultural Representative.

As dodder has been found attacking upwards of fifty weeds including yarrow, wild mustard, ox-eye daisy and perennial sow thistle, it is important that your land be clean, even though you plant non-susceptible crops. These "safe" crops are oats, barley, rye, millet, morn, soybeans and the grasses such as timothy and orchard grass. Under no circumstances should clover, alfalfa or flax be sown where dodder has been found.

In addition to field crops, dodder will grow on vegetables such as potatoes, peas, pepper, lettuce, onion, rhubarb, tomato and cabbage. Nor are ornamentals immune for dodder has been grown on petunias, geranium, nasturtium, and marigold, etc. Wherever dodder is found care must be taken that every bit is destroyed as it must not be allowed to produce seeds.

Hay Machinery Costs

Due to the shortage of farm machinery and farm labour some farmers will likely rent or borrow machinery for haying operations. This exchange of machinery should be based on a charge or price which is fair to the owner and renter so that both will benefit from the transaction.

The following are estimates of machinery costs for hay machinery based on the average use of farm machines in Eastern Canada. The costs include all repairs, depreciation and other costs items but do not include profit or charges for moving machinery from one farm to another. Man labour is valued at $3.00 per day and a team at $2.60 per day.

Mower	29 cents per acre or	$ 2.75 per day
Mower, team and man	88 cents per acre or	$ 8.35 per day
Dump rake	26 cents per acre or	$ 2.16 per day
Dump rake, team and man	43 cents per acre or	$ 7.76 per day
Side rake	33 cents per acre or	$ 5.28 per day
Side rake, team and man	68 cents per acre or	$10.88 per day
Hay loader	21 cents per ton or	$ 2.52 per day
Hay loader, wagon, rack, team and man		$ 8.15 per day
Wagon, rack, team and man		$ 5.82 per day
Hay press (based on 200 tons per year)		$ 0.27 per ton
Hay press, tractor, three men but less wire		$16.94 per day
Two plow tractor, with fuel, less operator (500 hours per year)		$ 4.56 per day
Three plow tractor with fuel, less operator		$ 6.15 per day

Auto buck rakes have not been used extensively as yet on a custom basis but it is estimated that an auto buck rake costing $200 would cost from $2.75 to $3.25 per day to operate not including operator's wage. Tractor buck rakes would cost slightly more than the cost of a tractor. There are variations in conditions under which machines are operated and the costs vary accordingly but the above figures will act as a guide in exchanging machines. — W.K.

The Corn Borer

This is the time of year when the corn borer begins to make its appearance. Conditions during the past winter have been particularly favourable to the borer and it is likely, unless cleaning of fields has been properly done, that we will have a serious infestation this summer.

During 1943 it has been estimated that corn borer cost United States farmers thirty-six million dollars in lost crops, the greatest loss ever recorded. That serious damage was not caused in Quebec is due to the co-operation of farmers with the Department of Agriculture in destroying all remnants of the previous season's corn crop. The borer spends the winter in old corn stalks and stubble, and when these are burned or plowed under deeply, the over-wintering borers are destroyed. It is to be hoped that the splendid work done last year by farmers and inspectors of the Department will be continued this summer. By unremitting and unrelenting effort, we can rid this province of corn borer if we will only take the trouble to make the effort.

Army Worms

Indications are for large numbers of army worms this season, and provincial entomologist Dr. Gauthier gives several methods of controlling these caterpilars. The army worm reached serious proportions in the Province of Quebec in 1938 when half a million acres were damaged and the crops of 15,000 farmers were reduced by the ravages of this pest.

The following methods of control have proved effective and should be put into practice as soon as the caterpillars are seen on the farm.

1. Poisoned bran bait scattered in fields where the caterpillars are already at work will give good control.
2. Spraying plants with a solution of arsenate of lime, 2 pounds in 40 gallons of water will also control the army worm. When using either of these methods it is important that livestock be kept out of areas where poison has been applied.
3. Army worms on the march can be stopped by plowing a furrow with one straight side around the field it is desired to protect.

Fuller information, if necessary, can be obtained from the agronome.

Cull Poultry Now

It is common practice among owners of small poultry flocks to cull fairly effectively once a year, usually in the autumn when pullets are being placed in laying quarters. While culling at that time is to be commended the owner should not lose sight of the fact that considerable culling should be done at other seasons, if the flock is to be maintained at peak efficiency. The summer season is not the time to harbour the low producer. Cost of feed is a major item in cost of production and the production level must be fairly high or feed-costs will not be met. At the same time, there is quite often a very ready market for fowl of good quality in that period just prior to marketing the new crop of broilers and roasters.

In many sections, hotels and summer colonies catering to a tourist clientele, offer a good market for such surplus stock and the farmer should certainly make an effort to profit by this market.

The work entailed in rearing young stock for replacements has also added additional burdens at this season of the year. It is recommended that the flock be culled closely and every individual bird be removed that gives evidence of being unprofitable.

Provincial Judging Competitions to be Held at Sherbrooke Fair

Calf Club exhibits and the Provincial Judging contests will be held in Sherbrooke at the time of the Sherbrooke "Victory" Exhibition this fall.

The Calf Club entries will be open to all counties covered by the Sherbrooke Exhibition, in other words, the entire Eastern Townships. The Provincial Judging contest, at which Quebec's representatives to the Dominion finals at Toronto will be selected, will be open to eleven districts representative of all sections of the province, including Sherbrooke, Victoriaville, Quebec, Ste. Anne de la Pocatiere, Rimouski, Lake St. John, Three Rivers, Hull, Montreal, Ste. Hyacinthe and possibly Abitibi.

Entrants in the judging competitions will arrive in Sherbrooke on the evening of Monday of Fair Week. Judging will be done on Tuesday morning and the oral examinations are scheduled for Tuesday afternoon. Calf club exhibitors will arrive on Tuesday and the exhibits will be judged on Wednesday and Thursday.

Quebec Junior Live Stock Clubs

A summary prepared by Mr. J. P. Fleury, Supervising Fieldman for the Dominion Department of Agriculture, shows that 132 calf clubs, 15 swine clubs, and 10 sheep clubs completed their projects in 1943.

Members of the 132 calf clubs exhibited at their club shows last year 2,514 calves, 1,247 yearlings, 765 two-year olds and 516 herds. Of the total of 5,042 entries at the club shows, 2,679 were rated as very good, 2,241 as good and 122 as fair.

The 15 swine clubs showed a total of 274 entries and the 10 sheep shows brought out 344 entries.

Mr. Fleury reports that from 160 to 165 live stock clubs will operate in Quebec this year and there are many prospective new clubs on the list. However, because of a reduced field staff, it is doubtful if all of these can be organized this year.

Hog Shipments at a High Level

Last year Quebec shipped 436,993 graded hog carcasses and the same level of production is hoped for during 1944. If the level of shipments made during the first three months of this year continue, our shipments will be larger than last year. During January, February and March Quebec farmers sold 216,713 hogs as against 77,332 for the same period last year; of these, over a quarter graded A and 57.2% graded B 1 and qualified for the premium on quality carcasses.

Canada has contracted to send at least 900 million pounds of bacon and ham overseas in the next two years but at the present rate, our contract may be filled in one year instead of two.

Plant Protection Officers Elected

The annual meeting of the Quebec Society for the Protection of Plants was held in Montreal last month, when the members reviewed the activities of the Society for the past year and laid plans for future operations. Mr. R. Ferron, assistant director of services for the Department of Agriculture, forsaw the need for increased efficiency in agriculture to meet post-war competition from other countries, and to this efficiency the contribution of agricultural scientists and research workers in particular will be important.

Officers for the coming year elected are: president, H. G. Crawford, Dominion Entomologist; vice-president, F. Godbout, chief of the plant protection bureau in Montreal, secretary, R. Barabe who was re-elected for the fourth term. Directors are W. N. Keenan, R. Pomerleau, H. N. Racicot, J. B. Maltais, G. Gauthier, R. P. Louis-Marie, B. Baribeau and E. Jacques.

Farm Labour Supply

Officers of the Department of Agriculture and National Selective Service met at Ste. Martine last month to survey the farm labour situation and to make plans to meet the probable heavy demand for labour during the coming season.

It was decided to divide the province into eight districts with an officer in charge of each who will act as agent between the farmers in the district on the one hand and the different labour bureaus on the other. A detailed survey of the labour needs of the farmers in each of these districts will be made as the first step in securing the necessary men: once the needs are known, steps will be taken to find men to fill the jobs. It is hoped to enlist the aid of students on holidays, soldiers and townspeople, if the supply of trained men should prove insufficient. In particular, officers-commanding the various army camps will be urged to do their part by releasing men who have had farm experience from their military duties so that they can be put to work on the farms.

Grain Prospects Good

Given good growing weather, Quebec's harvest of grain should be considerably larger than it was in 1943. Due to a bad season last year, and in spite of larger plantings, our oat crop was only 75% of that of 1942, barley 83½%, and mixed grains 78%. Another factor this year is the fact that in spite of only half a crop of seed oats in Quebec last year, Western oats, brought in through the initiatives of the Department of Agriculture, added to the local supply will give enough seed for all our requirements.

The same quantity of oats is required to be grown in Quebec in 1944 as last year, and an increase of 10% in barley (an extra 15,600 acres) and mixed grains (29,180 acres) has been asked for.

CO-OPERATION AND MARKETING

A page of interest to members of farmers' co-operatives

Co-operatives Celebrate Centennial

100-YEAR-OLD ROCHDALE PRINCIPLES—A GUIDE TO THE FUTURE.

The present year, 1944, marks the Rochdale Centennial.

Just one hundred years ago the modern cooperative movement was born when a group of 28 flannel weavers in Rochdale, England, found the magic recipe for co-operative success. While there had been many experiments of a cooperative character before that time, none had taken root.

At Rochdale the movement was born, like many other great movements, in humble circumstances. Confronted by wretched economic and social conditions, the now famous "28" undertook to find a method for bettering their lot as well as the lot of their children and their children's children. After many months of deliberation and discussion they conceived the plan of their cooperative society. However, they did not jump hastily into action but first undertook to raise a small fund of capital.

It was on October 24, 1844 that the Pioneers obtained their charter as the Rochdale Society of Equitable Pioneers under the Friendly Societies Act. Then they undertook to find a place of business. An old warehouse on Toad Lane was found suitable for their purpose, and was finally rented for a three-year period for £10 per annum. After providing for necessary fixtures some £14 or £15 was available to pay for a stock of merchandise. According to a contemporary, the first stock was so meager that it could be hauled away in a wheelbarrow.

An Evening of Uncertainty

The Store was opened on December 21, 1844. It was with considerable trepidation, since so much was hoped for from the inauspicious little start. The opening has been well described by Holyoake in his History of the Rochdale Pioneers:

> On one desperate evening — it was the longest evening of the year — the 21st of December, 1844, the "Equitable Pioneers" commenced business. . . . A few of the cooperators had assembled to witness their own denouement; and there they stood in that dismal lower room of the warehouse like the conspirators under Guy Fawkes in the Parliamentary cellars, debating on whom should devolve the temerity of taking down the shutters, and displaying their humble preparations. One did not like to do it, and another did not like to be seen in the shop when it was done; however, having gone so far there was no choice but to go farther, and at length one bold fellow, utterly reckless of consequences, rushed at the shutters and the crowd in Toad Lane exclaimed in a chorus "Aye! the owd weaver's shop is opened at last."

And what was so significant about this little store on Toad Lane that caused it to generate a self-perpetuating movement? Why has this little store served as the seed and foundation stone for cooperation throughout the entire world?

The answer is a simple one. The cooperative pioneers, in setting up the Rochdale Store made plans for a practical program. It has been said that they were not theorists but practical men — but they were practical men also in the sense that their actions were guided by well considered theories. They attempted to find the elements that would enable a cooperative to function and grow amidst the most difficult type of surroundings. They did not set out to reform the world with one burst of propaganda. Rather they undertook to plant a seed and to see that that seed had nourishment. But they were not unaware of the potentialities of their efforts and no aim could be more ambitious than their orginal declaration:

"That, as soon as practicable, this Society shall proceed to *arrange the powers of production, distribution, education, and government,* or in other words, to establish a self-supporting home-colony of united interests, or assist other societies in establishing such colonies."

The Rochdale Pioneers did not confuse ends with means. They gave their attention to means that would work toward the desired end.

All are Consumers

What were the practical principles that the Rochdale Pioneers adopted in establishing their little store on Toad Lane? Looking back from today, the vaunted principles of the Pioneers seem to be only a code of common sense. But

we must not forget that common sense today is but an acceptance of the proven theories of yesterday.

Dividends on Patronage

First and foremost the Pioneers proved the practicability of selling at market prices and returning savings to patrons in proportion to the patronage of each. This

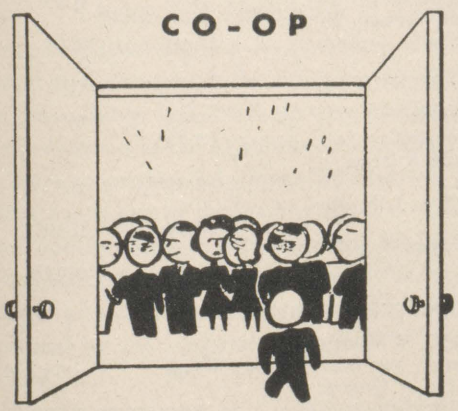
Savings are Returned

method of returning savings in proportion to participation has been called both the "hallmark" and the "sheet anchor" of the Rochdale Pioneers. Combined with this simple service, the Rochdale Pioneers provided that capital should be recompensed only for its use by restricting interest payments for the use of capital to a fair return.

Open Membership a Credo

Secondly, among their practical principles, the Rochdale Pioneers firmly established the fact that democratic procedures are indispensable to true cooperation. To this end they provided for open membership by men and women regardless of party or creed; for control through the one-man, one-vote principle; for regular and frequent meetings with full freedom of discussion; for open and proper records based on honest audits.

In the third place the Rochdale Pioneers undertook to prove that a group of individuals by joining together could protect themselves against trade abuses. In the words of Holyoake, they demonstrated that "Pure quality, good weight, honest measure, and fair dealing within the establishment, buying without higgling, and selling without fraud, are sources of moral and physical satisfaction of far more consequence to a well-trained person than a farthing in the pound cheaper which the same goods might elsewhere cost . . . Our little Store thought more of improving the moral character of trade than of making large profits."



Anyone May Join

The Pioneers were fanatical in their devotion to the importance of fair dealing while minding their own business, and this greatly lessened the strength of organized opposition.

Cash Dealings Only

One of the evils of that time in merchandising which has continued even to this day was the sale of goods on credit. To safeguard against this evil — which increased the costs of merchandising and tied customers to inefficient practices — the Pioneers provided that all goods would be sold for cash.

The idea of the Rochdale Pioneers grew with surprising rapidity until today the term "Rochdale" has come to be almost synonymous with the concept of cooperation. It was not long before other societies on the Rochdale pattern were established, with the original Rochdale Society serving as their wholesaler, and this development was followed as more and more local societies came into existence by the establishment of the present great British Cooperative Wholesale Society. Since that time there has been a steady accession of cooperatives following the Rochdale precepts in all quarters of the world.

Farmers in their marketing cooperatives have been concerned with somewhat different problems from consumers

Each has an Equal Vote

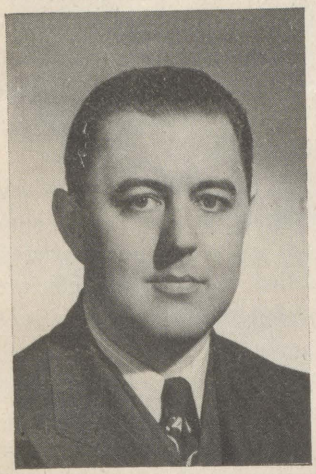
in purchasing societies since their principal problem has been to obtain a fair return for their products. But they found that the Rochdale idea would work both ways, that their crops could be sold at market prices by their own associations, with savings returned on the basis of each individual's patronage. Most of the other Rochdale principles were acceptable with little modification. Therefore, with the passing of the years, Rochdale procedures have come to be adopted by all forms of cooperative organizations, whether of consumers or producers.

In this way the acorn — the Rochdale idea — has grown into the mighty oak — the present cooperative movement which numbers its adherents in the millions. And the vision of the Pioneers still leads on!

—From an article by J. G. Knapp—in News for Farmer Co-operatives.

Penicillin, the new "wonder drug" is to be manufactured co-operatively in China by the industrial-agricultural co-ops. Microfilm directions for its preparation have been made and flown to our ally.

New Co-op. Appointment



The United Farmers Co-Operative Company has appointed Leonard Harman as General Secretary, a position formerly held by H. H. Hannam, now President and Managing Director of the Canadian Federation of Agriculture.

In his new position, as well as serving as General Secretary to the Board and to the United Farmers Co-operative Company, Mr. Harman will supervise the general co-operative organizational and educational programme.

A POLICY THAT CONQUERED

From George Holyoke; History of the Rochdale Pioneers

"The good feeling prevailing among the tradesmen of the town has been owing somewhat to a display of unexpected good sense and moderation on the part of the cooperators, who have kept themselves free from the greed of mere trade and the vices of rivalry. If the prices of groceries in the town rose, the Store raised its charges to the same level. It never would, even in appearance, nor even in self-defense, use its machinery to undersell others; and when tradesmen lowered, as instances often occurred, their prices in order to undersell the Store, and show to the town that they could sell cheaper than any society of weavers; and when they made a boast of doing so, and invited the customers of the Store to deal with them in preference, or taunted the dealers at the Store with the higher prices they had to pay, the Store never at any time, neither in its days of weakness nor of strength, would reduce any of its prices. It passed by, would not recognize, would in no way imitate this ruinous and vexatious, but common resource of competition. The Store conducted an honest trade — it charged an honest average price — it sought no rivalry, nor would it be drawn into any, although the means of winning were quite as much in its hands as in the hands of its opponents. The prudent maxims of the members were, "To be safe we must sell at a profit." "To be honest we must sell at a profit." "If we sell sugar without profit, we must take advantage covertly in the sale of some other articles to cover that loss." "We will not act covertly; we will not trade without profit whatever others may do; we will not profess to sell cheaper than others; we profess to sell honestly" — and this policy has conquered.

Market Comments

These lines are written on D-Day, the day after the liberation of Rome. Both of these are important to Canadian farming. These events both increase demands for food products. The wheat surplus ceases to be a problem. This is largely due to the shipments to the United States which have taken since August first, 1943, 171 million bushels of wheat, and 52 million of oats and 27 million of barley, in round numbers, up to May 25, 1944. It is also partly due to the reduction of area devoted to wheat from 28 million in 1940 to 18 million in 1943. Prospects are for a considerable increase in area this season.

Announcement that there is at present no prospect of any change in price of wheat is an item of interest to farmers who purchase wheat for feed. News from Britain is that consideration is being given to guaranteed prices of some farm products for the years from 1944 to 1948. Prices are to be regulated from year to year in view of the statistical position.

Seasonal influences are reflected in prices of many farm products as compared with the previous month. Cattle prices are higher, veal and lamb lower, apples higher and potatoes lower. It is reported that the recent decline in potatoes is due to stocks being withheld for higher seasonal prices too long resulting in the need for lowering the price in order to dispose of the crop by the end of the season. Variations in prices have not been great and the chief feature of prices of farm products has been their stability. The first crop report covering the whole country issued from Ottawa June 6th mentions excellent crop prospects generally throughout the Dominion.

	May 1943 $	*April 1944* $	*May 1944* $
LIVE STOCK			
Steers, good, per cwt.	11.08	12.25	12.40
Cows, good, per cwt.	9.90	9.10	9.40
Cows, common, per cwt.	7.88	6.95	7.29
Canners and Cutters, per cwt.	6.10	5.82	5.87
Veal, good and choice, per cwt.	14.70	12.95	12.27
Veal, common, per cwt.	13.25	8.85	8.33
Lambs, good and choice, per head	9.75	6.00–7.00	7.52
Lambs, common, per cwt.	——	8.85	5.45
Bacon hogs, dressed, B. 1, per cwt.	16.90	17.15	17.65
ANIMAL PRODUCTS:			
Butter, per lb.	0.33	0.35	0.34
Cheese, per lb.	0.23	0.21	0.21
Eggs, Grade A large, per doz.	0.35½	0.35½	0.35½
Chickens, live 5 lb. plus, per lb.	0.33	0.30⅛	0.28
Chickens, dressed, milk fed, A per lb.	0.35	0.37⅛	0.35½
FRUITS AND VEGETABLES:			
Apples, B. C. Winesaps extra fancy, per box	4.25–5.00	4.04	4.04–4.08
Potatoes, No. 1 Quebec per 75 lb. bag	2.10	1.50–1.70	1.25–1.50
FEED:			
Bran, per ton	29.00	29.00	29.00

APPLE SITUATION . . . *(Continued from page 4)*

vegetable market for the week ending April 5, 1944 reports No. 1 Ben Davis at $10.00 per bbl. at Edmonton. In the same market No. 1 Northern Spy is quoted at $11.15 per bbl. These prices do not reflect any very great discrimination on the part of buyers. The price of Ben Davis would appear to be in the class of "believe it or not" stories.

The Ben Davis, in the region where it is grown chiefly for export, has been compared to a turnip as to taste. I would not take a chance on libelling the turnip to this extent. As an apple it is a somewhat dangerous imposter. While not having the seductive color of the Delicious it is of somewhat similar shape. That is, it runs more to longitude than latitude. Perhaps this is to make certain that there will be the largest proportion possible of core compared to the amount of apple that surrounds it. This makes no difference in the matter of the Ben Davis at any rate as the core cannot be much worse than the flesh of the apple. It is the coloring that is dangerous. The attractive blend of red and yellow might easily persuade the uninitiated to take a chance but it is hard to understand a repeat order. The Ben Davis has its points however. Nothing will apparently stop it from producing a crop. In years when all other varieties are scarce or non-existant the Ben Davis is always available, and when there are no other varieties available and none other to compare it with, this apple comes into its own as it is in a class by itself.

There may be some good points about the Ben Davis. It is so hard and woody in texture that probably nothing short of a termite would tunnel into it. Another quality it has is its dryness. In dehydration, that is now so important with apples generally, the Ben Davis may be a desirable variety — it has naturally such a good start.

One cannot speak too harshly of an apple that brings $10.00 per bbl. even if it only happens once. This price may make the policy of grafting out this variety more difficult. Speaking of grafting, a writer in the Christian Science Monitor tells how an artist at the work may have on one tree different varieties for every week of the season. He ended the article with the suggestion that the more grafting the better the apple, which was supposed to be a pun acceptable to consumers at present prices.

Price and Production

The price may seem high to the consumer. Yet the price has not been high enough to the producer to promote expansion of the industry. In 1901 there were over two bearing apple trees per person in the Dominion. Now there are only three trees for four people. Substitutes have become popular. Fresh fruits are now one of the leading imports of food products of the country. Oranges have displaced apples to a very great degree both in Canada and the United States. Perhaps the expansion of orange consumption and production is partly explained by the cooperative method of production and marketing.

The citrus fruit growers of California expanded their production 50 times in 50 years. They put up a brand that may be safely and confidently ordered by the consumer by telephone. This stage has been reached by improving and maintaining quality. The apple growers of British Columbia by combining to market their fruit have gone a great way in putting out a product and a pack that may also be ordered with confidence.

Dehydration

Apples are grown in a few specialized localities. The regions where apples are grown do not coincide closely with the areas most densely peopled. In consequence transportation is an expensive part of marketing charges.

Dehydration may be the solution as far as cooking apples are concerned. Improvement and expansion in dehydration has taken place during the war years. No doubt the improvement in technique in dehydration will enable this practice to prove of value in the post-war period.

This leaves the provision of dessert apples still a problem. The old farm orchard with its numerous varieties has largely passed out. This was due primarily to neglect of spraying and the cultural methods now necessary. With this development most farmers as well as other consumers now depend upon commercial orchardists for their apple supply.

The development of a home or kitchen orchard, as it is sometimes called, is a possibility. This is possible due to the recent emphasis placed on dwarf trees. These trees will come into bearing early, may be sprayed without much difficulty and allow the fruit when grown for home use to be tree-ripened to a greater degree than commercial orchardists usually practise. Where soil and climate permit, the use of dwarf trees for a home orchard would appear to be possibility worth considering.

N.S. Wool Grading Stations Opened May 15th

Nova Scotia's wool grading stations, one at Truro and one at Antigonish, opened May 15th. In the main producers west of New Glasgow ship to Truro and east of New Glasgow to Antigonish.

The stations are well staffed and every effort is being made to grade wool as soon as received. Producers are asked to ship their wool as early as possible. Bonus payments will be included with regular payments. Wool to qualify for the 4-cent-a-pound bonus must be tied with paper twine and experience of the past indicates that early shorn wool grades higher than wool that is shorn later in the season.

The four-cent-a-pound bonus being paid by the government on wool received on or before July 31 applies only on wool that makes the higher grades. It is estimated that over ninety per cent of Nova Scotia wool should qualify if the fleeces are carefully packed, tied with paper twine, and the seedy burry wool and damaged fleeces are separated from the good wool and shipped separately to the grading stations.

Pithy Pickings

by F. S. Thatcher

The essential need for the efficient pasteurization of milk whether to be used as whole milk or for butter is consistently being driven home by facts. Butter made from raw cream presents a health hazard because such butter can harbour the bacteria which cause the human diseases undulant fever, Streptococcus infections, food poisoning, sore throats, for as long as six months. These are among the most important diseases likely to be transmitted by milk products, the source being udder infections. All the germs responsible are easily destroyed by pasteurization.

Recent surveys in a number of countries show that very high proportions of several types of tuberculosis, particularly among children, are due to the bovine strain of the tuberculosis bacteria carried by unpasteurized milk.

Raw milk has just been reported as the cause of a severe outbreak of gastro-enteritis at a defense plant in a small town. Pasteurization in this case would have saved 57 workers from a most unpleasant illness.

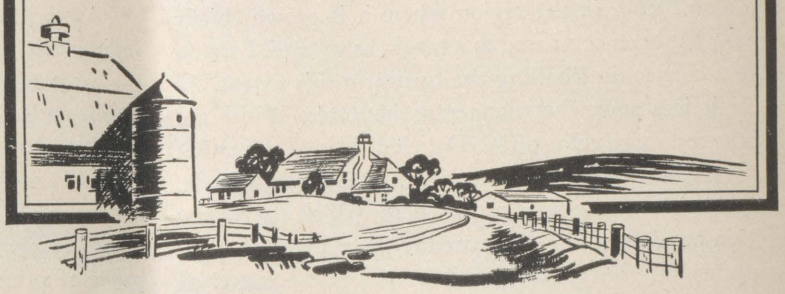
Distribution and processing of milk has been declared a public utility in Nova Scotia, and all dairies, creameries, milk distributors and ice-cream manufacturers must maintain set standards to retain the license necessary for operation.

A new Pennsylvania bulletin re-emphasizes the value of phosphorus, in superphosphate, as a pasture fertilizer. Its value has been measured over a ten-year period in terms of increased milk production and weight increase. Potash and nitrogen also have their place as pasture fertilizers but most profit accrues from the use of phosphorus.

Any lot of potatoes showing the ring-rot disease should be sold for table-stock as soon as possible.

LOANS to FARMERS

FOR SEASONAL PURPOSES,



When you require ready cash for the purchase of seed, fertilizer, livestock, farm equipment and other legitimate purposes call at your local branch of The Royal Bank of Canada. The Manager will be glad to discuss a loan with you and explain the simple terms under which it can be made and the convenient arrangements available for repayment.

Lending money is one of the principal functions of this bank. We are always pleased to advance cash on loan to any responsible individual able to repay out of income.

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Co-operative bull ownership and artificial insemination are being tried this year by the Ontario Department of Agriculture. Dairying authorities from Wisconsin declare such an arrangement to be very effective in their State, where it is proving the best means of getting rid of low grade herds and of raising the general quality level.

Pasture improvement is still a subject being written about a great deal. A Michigan research paper describes a pasture mixture with many points of advantage over those commonly found. Alfalfa, the best of legume forages, and smooth brome grass, a very palatable, drought-resistant, perennial grass have proved very valuable, being particularly good during the heat of July and August.

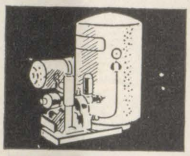
The practice of picking immature fruit in order to gain an early market is wasteful and has hurt the popularity of fruit among consumers. Fruit picked too soon does not possess inherent quality and will not ripen properly. Of equal bad effect to the fruit industry is the practice of leaving fruit unpicked after it is mature so as to gain additional size or colour. Over-mature fruit does not keep well and soon becomes mealy and practically useless.

About 57,000 tons of vegetables were produced in wartime gardens in 1943 in Canadian cities and towns having a population of 1000 or more. There were some 209,200 gardens and each produced about 550 pounds.

In spite of much research, mastitis remains one of the biggest problems in progressive dairying areas. Apart from being a possible source of human illness, it causes great losses to U.S. and Canadian dairy farmers every year. Control still mainly depends on sound herd management, early diagnosis, prompt segregation and treatment or disposal of infected cows.

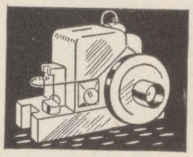
FAIRBANKS-MORSE
FARM EQUIPMENT

More Fairbanks-Morse Equipment Now Available


WATER SYSTEMS AND HAND PUMPS

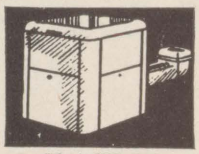
To-day, with labour scarce and time more valuable than ever, farmers with Fairbanks-Morse equipment are doubly thankful for its mechanical dependability and rugged stamina.

Hard-pressed farmers everywhere will welcome the news that MORE "Z" ENGINES, WATER SYSTEMS AND ELECTRIC FENCERS WILL BE AVAILABLE THIS YEAR.

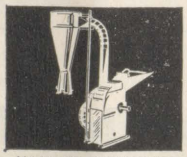

"Z" ENGINES

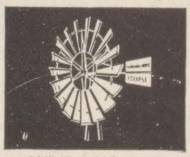
ELECTRIC FENCERS

Not enough to satisfy ALL who want them, however, so if YOU need the help of one or other of these proven products, see the nearest Fairbanks-Morse dealer RIGHT AWAY.


COAL STOKERS

Limited wartime supplies of other Fairbanks-Morse Equipment will again be available from time to time, and will immediately be shipped to dealers in proportions based on normal requirements.


HAMMER MILLS AND GRAIN GRINDERS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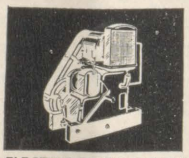
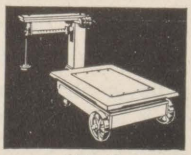
If your dealer can't get the Fairbanks-Morse equipment you want immediately, he will put you down for the first available. Meanwhile you can get replacement and repair parts without restriction, and the Fairbanks-Morse nation-wide organization is at your service to help keep your present equipment in good working trim.


ELECTRIC LIGHT PLANTS AND BATTERIES


SCALES

The CANADIAN FAIRBANKS-MORSE Company, Limited

Saint John · Montreal · Toronto · Winnipeg · Vancouver

STRIPPINGS

by Gordon W. Geddes

Well, we certainly got some of the hay cut early when a frost on May 20 killed the tops off the alfalfa and some of the clover. Everyone is hoping that it didn't finish off the fruit crop, too, but it seems a strong possibility. It was entirely too hot the first part of May so everything grew well and the frost had a good chance. Anyway, we won't have to complain so much about the allowance of canning sugar if the fruit crop is light. We got the cattle out to pasture to try to lighten the chores but it would have been better for them if they were still on stable feed until the frost was over. Once they get a taste of grass, hay doesn't mean much to them even if the grass is scarce.

We did get some help with the chores in the form of twelve-year-old Stanley Barnes who has to go to school but helps out between times. He'd been here about a week when in walked a French boy sent by the Provincial Farm Help Bureau in Montreal. We had applied there for help when our man left in March and that was the first we had heard of any. They should not expect to send a man from Montreal without any notice as no farmer will turn down an opportunity to get help on the chance that some agency will provide it. We would have preferred the older boy but we had made our trade with Stanley for the summer. However, a little 'phoning found a place for the other one.

The Film Board show 'Hands For The Harvest' certainly made it look as if a great deal of planning to provide extra help for the farmers had been done in most provinces. However, very little of it has occurred in Quebec. The possibility of a Selective Service camp in this district to provide crews for haying was mentioned. However, it is hard to provide horses and tools to keep a big gang at work on our smaller farms. A little inexperienced help on each of several farms would be more help than a whole crowd on any one farm. On our farm we'd like to see a

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Many a good farmer knows from sad experience that tire failures can cost him plenty in time lost and crops injured. Don't be caught! Your farm, your business, your production of food and fodder are essential.

Don't handicap yourself with a car or truck in unusable condition because of badly worn or dangerous tires. Imperial-Atlas dealers are enlisted in the great wartime Tire Conservation Plan to help you get maximum service from the tires you now have and to supply you with essential tires when you are in need of them.

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FROM COAST TO COAST

grass-cutter with a crew of men about the last of June. If enough other farmers had the same idea, a government owned machine could save a lot of hay in good condition to help relieve the butter shortage. We have tried it but the machines available for hire haven't the capacity to handle green hay. It will make very good feed if it is cut short enough and tramped well enough in the silo. If the moisture content is right it smells just like fresh grass. If there is too much moisture the silage is dark coloured and doesn't smell as good but the cattle still prefer it to dry hay for part of the roughage.

It seems as if there are grand opportunities in the way of co-operative purchase of machinery. Our farm is too small to own a grass blower and a power plant to operate it. We can't afford a tractor outfit for plowing and harrowing yet the custom outfit usually keeps one waiting too long. It seemed as if the harrow never would get here this spring but after the chores were done, the horses accomplished very little before it was chore-time again. And we had to be veterinarians in betweeen times as well. First Bonnie, the sucking colt, had dysentery. By the time she was cured one of the calves had it and refused to be cured so all we could salvage was the hide. Then one the three-month-old pigs passed out and we couldn't even save the hide. I've bought lots of gloves made out of pig-skin but never heard of anyone skinning a pig.

Bonnie certainly put on quite a circus act for an amateur when we turned her out to pasture. I put a good dose of fertilizer on a small field the last of April to try to get a good early pasture for her and her mother as well as the calves. The grass didn't mean a thing to her but the wider spaces certainly did. Stage-fright didn't bother her even if Eddie and Stanley and Dot and I (and Trixie) were all gawping at her. Her only worry was how to go in all the directions she wanted to at once and the same time. Dot thought she looked like a rocking-horse at times.

The Milking Stool

Another Symbol of the HARD WAY Becomes a Relic

One by one the time-taking, tiring and tiresome hand labor chores of the farm have been eliminated by a machine that does the work easier, quicker and more profitably.

The milking stool for instance has long been a symbol of the hard way to do a job. But more and more dairymen are spending less time on milking stools now.

Because the purchase of a milking machine saved them hours of time and labor, thousands of dairymen have been able to carry on and benefit from the great demand for dairy products in recent years. "Hand milking" is out for them now that they have experienced the comfort and convenience of a mechanical milker.

In the progress that Canadian agriculture has made in improved methods and practices, equipment engineered and manufactured by Massey-Harris has played an important part. Among the time and labor saving machines your local Massey-Harris dealer has to offer is the Rite Way Milker. Make it a point to ask him for full particulars.

MASSEY-HARRIS COMPANY LIMITED
BUILDERS OF GOOD FARM IMPLEMENTS SINCE 1847

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WAR SAVINGS STAMPS

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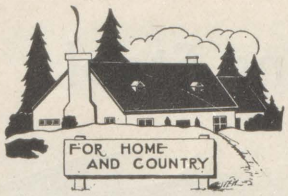


THE WOMEN'S INSTITUTES SECTION

Devoted to the activities of the Quebec Institutes and to matters of interest to them

NEXT WINTER'S MEALS

by Barbara Fletcher

Next Winter's Meals will be just as difficult to plan as they were this year. What a joy then to have a cellar well-stocked with home-preserved fruit, vegetables, meat, and eggs, to ward off monotony and ensure good nutrition. Let us avoid the necessity for a spring tonic next year by eating properly all winter.

A corner partitioned off from the rest of the cellar, and fitted with shelves and bins, is a very satisfactory storage place. Full specifications for such a room, including dimensions, temperature and moisture control, kinds of suitable vegetables and their preparation for storage, may be secured from two excellent bulletins: Number 632, "Household Storage of Fruits and Vegetables", Department of Agriculture, Ottawa; and Circular 322, "Storing Vegetables at Home" Extension Service (Agriculture), University of Wisconsin, Madison, Wis.

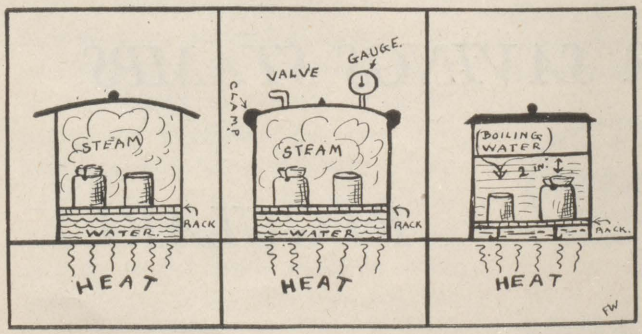
While storage is the most economical method of food preservation it is not suitable for all types. Some fruits and vegetables must be "canned" in tins or jars to have them keep.

The only principle involved in canning is "Perfect Sterilization, Perfect Seal". If the product is put up in a durable container, the whole thing perfectly sterilized, and a seal obtained which will bar the air, the contents will keep without any flavouring, sugar or other preservative. These may be added to taste, either at the time of canning or upon the use of the food.

The containers used may be:

1. CANS—which come in various sizes and must be used with a mechanical can-sealer (costing about $15.).

2. JARS—in pint or quart size, with glass tops and rubber rings between, held down and sealed by either spring tops or screw tops.



The steps in the process are simply these:

1. Assemble cans or jars with tops. Pre-test jars for leaks.

2. Blanch or pre-cook produce to be canned.

3. Pack in sterilized jars or cans, and seal.

4. Process, to sterilize both container and contents, according to time-table.

5. Cool, test, label and store the product.

Did we say "simply"? There are many details of the method which cannot be covered here. Is a pressure cooker necessary? Is the time the same for everything? What about canning powders? Is oven canning safe? Does a boiler sterilize sufficiently? How long a time is needed? What is the best way to guard against food poisoning?

These and every other detail anyone could think of are given in a new bulletin "Wartime Home Canning of Fruits and Vegetables", Department of Agriculture, Ottawa. This booklet is just off the press, and the material it contains has been tested and compiled by Miss Pepper's staff of home economics at Ottawa.

We note that five methods of processing are recommended in this book: the pressure cooker, the boiler water bath, the steamer, the thermostatically-controlled oven method, and the raw canning process. This last is to be used only in the case of rhubarb and raspberries. The 'controlled oven' means one which is fitted with a thermostat attachment, as on some gas, electric and kerosene stove to be set at a certain temperature and remain there WITHOUT FLUCTUATING. Oven-canning is not recommended without such an oven, as explosions and food-poisoning may result from changing temperatures.

The differences between the other three are illustrated in the cut. This booklet is worth — in terms of time and food saved, good nutrition and tasty meals — many times the three-cent-post-card investment it requires.

Fruit may be preserved also by the use of sugar, as in jams, jellies, conserves and marmalades. However, there is little vitamin value in these because of the small proportion of actual fruit and the large amount of sugar. In view of the facts, the making of such products is not recommended in wartime, except for use overseas where they need concentrated produce. Even if a jar of jam *does* go further than a jar of preserves, it has less food value

and requires much more sugar than many pints of preserves.

This raises the question "How many jars or cans should I put up?" It can only be answered generally, as each family has its own taste and habits of eating. Calculate from the following facts:

1. The number of people who will be using the food;

2. The number of times you will serve the particular product, per week;

3. The number of weeks you will be dependent on your cellar for food.

Making such a plan for each of the articles of food to be stored or canned, follow it as well as you are able during the season of plenty, and there will never be want at your table.

. . . . . .

A one-day canning course, including plans for community canning, is being arranged for at Macdonald College on the 30th of June. It is being held especially for the members of the Quebec Women's Institutes, but there may be accommodation for others interested. Address inquiries to the Office of the Q.W.I., Macdonald College, P.Q.

Health Insurance

Health insurance has been discussed in Canada for 20 years, and the Federal Government now is in a position to present a draft national plan. The main objects of the draft plan are:

1. The reduction of morbidity and mortality and the creation of positive health.

2. The provision of medical care for all.

3. The protection of families against the hazard of illness.

4. The eradication of tuberculosis and veneral diseases; the reduction of mental illness, heart disease, arterial disease, nephritis, diabetes, cancer, and diseases of middle life.

5. To attack the causes of sickness and death vigorously and effectively.

6. The protection of motherhood and childhood.

7. The extension of public health services throughout the country.

8. The expansion of hospitals, sanatoria, laboratories, health units and health centres.

9. The integration of public health and medical care.

10. The provision of the services of the general practitioner, the consultant, the specialist, the surgeon, the nurse, the hospital, the dentist and ancillary service to everyone.

Mr. Mackenzie said the proposed plan would cost an estimated $250,000,000 annually, an amount less than the present annual cost of illness.

—From Report by D'Arcy O'Donnell.

Q.W.I. Notes

The annual county Conventions of Quebec Women's Institutes are held each year in May, when changes in officers and conveners take place, and the new programmes for the year's meetings come into effect. Reports of all work done during the year are submitted and discussed and new projects planned for the coming months. The Q.W.I. Secretary-Demonstrator, Miss Barbara G. Fletcher, attended these County meetings and gave timely advice and instruction to the delegates, her itinerary covering the entire Province wherever Institutes are organized. From reports given it is evident that, although War Services has claimed much time and effort, and considerable outlay of money as well, yet this has not greatly interfered with the work for which the W.I. was organized. In fact, it would seem that the broader outlook engendered by the World War has been a source of inspiration to the women of rural Quebec who are being trained to look through the right end of the telescope at life and its meanings, and to appraise things at their true value. Thus the primary object of the whole Institute movement, "the education of rural women" is being more nearly attained than ever before.

Argenteuil County. Brownsburg voted $5 towards the County Scholarships and heard a paper read entitled "Food Conservation in War Time". Frontier exchanged tested recipes. $3 was donated to the County Scholarship fund. Mrs. G. McGibbon spoke on Foods for Tomorrow and winners of a modelling contest were Mrs. D. Clark and Mrs. T. Burdock. Jerusalem and Bethany. A paper entitled "Getting ready for Spring" was read. Articles of clothing were modelled and made by members. Lachute. Mrs. Clunie spoke on the transplanting of seedlings, and showed how boxes could be made from paper to hold the plants. Mrs. J. S. Giles reported having sent a parcel of old stockings to the Grenfell Mission to be used in their handicraft work, and gave an interesting account of work done by the Institutes in England. Morin Heights. Mrs. L. Kennedy gave a talk on the value of mulch and how to care for rhubarb. $8.80 was realised by a White Elephant Sale. Pioneer. The making of articles from used material was a subject for discussion. A quilt top was pieced.

Compton County. A very interesting and timely talk was given in Canterbury Branch by Rev. G. Barr on war subjects. These included demobilization, treatment of the demobilized soldier after his army training, how to give him a chance to earn a decent living without the flavour of charity, and Government plans in this connection. Methods of ending the war were also discussed in Mr. Barr's address.

Chateauguay and Huntingdon Counties. Aubrey-Riverfield Branch had a discussion on gardening, and heard various items of interest in home economics. A paper

on Church Architecture was given by Mrs. Woodward. The roll call was a quilt block from each member. Dundee had hints on gardening and house cleaning, also a paper on First Aid by Mrs. H. A. Cameron. Franklin Centre held an all-day quilting, completing three quilts. Howick Branch observed a few minutes of silence in memory of a former member, Mrs. W. W. Orr. "Odd Tales and Happenings" was the title of a talk by Mrs. George Graham. A cooking demonstration was given by Mrs. J. J. Peddie. The importance of the home was stressed in a paper in Huntingdon Branch on the subject "Home and Country." The sum of $100. was donated to Huntingdon County Hospital from the W.I., to be used for an electrically heated crib in the case room. Ormstown Branch had a discussion on onions as a preventive of diseases. The guest speaker was Dr. J. W. Mills, and his topic was the "Importance of Dentistry for Children." The care of the mouth, the six-year molars, and periodic dentistry were stressed by Dr. Mills.

Papineau County. Lochaber Branch had an exchange of flower and garden seeds, and had as roll call the names of vegetables essential to health. Money was donated for school prizes, and poems on Mother's Day were read. A paper on "The Farmer" was read, and plans made to attend the Annual County Convention.

Pontiac County. The members of this Branch assisted at the Blood Clinic held in Shawville early in May. An article on "A Women on the Home Front" was read by Miss Minerva Corrigan.

Richmond County. Richmond Hill reports work done in repairing the Hall, and the sick cared for. Melbourne Ridge planned a food sale and cooking contest and held a sale of seeds, slips and bulbs. A social evening was held to raise funds for the School Fair, and Blood Clinic cards were distributed. Spooner Pond had thrift suggestions, and held a sale of seeds and slips. Cleveland had an interesting talk by Mrs. T. P. Ross on Blood Donors, and held a benefit tea. Quilts are in the making in the Branch.

Rouville County. Abbotsford Branch had as roll call articles suitable for ditty bags. Mrs. Fred Crossfield contributed two interesting readings, and Mrs. J. J. Gibb gave important current events for the past month. Mrs. R. Thomson addressed the meeting on Institute work.

Sherbrooke County. The Branch at Ascot catered for the annual supper of the Eastern Townships Settlement Society, which was a success in every way. A report of the Farm Forum Council meeting in Montreal was given by a member of the Branch, and articles by Walter Winchell were read. A recently married couple was honored by a gathering of friends, the event being sponsored by the Branch. Orford had a reading on Canadian birds and an exchange of bulbs and slips. A thrift exhibit and sale netted $5.60 for the treasury. Lennoxville Branch held its meeting at the home of Mrs. Hartley, one of its members. The principal item was a talk on the growing of flax by Mr. Hartley.

Stanstead County. Ayer's Cliff devoted their programme to Home Economics. Miss M. L. Kezar, provincial and county convenor of that department, gave an instructive talk on "Foods". Roll call was "My Pet Economy". This Branch felt the ceiling price on maple sugar was too high.

Beebe also featured Home Economics. An interesting talk was given on the various uses of the soy bean. Roll-call, "Household Hints". A contest was held each member bringing an article made from a used garment. The "White Elephant" basket is still travelling in this branch and is found helpful to the treasury.

Minton discussed an outline on agriculture as suggested by the provincial convenor. A plant was sent to a member in the hospital.

Stanstead North had an amusing old photograph guessing contest. Sick and bereaved have been remembered with flowers, fruit and gifts. A wedding gift was also sent to a former resident. A letter was read from a local boy now in the armed forces in England telling from personal experience of the great work of the Red Cross.

Tomifobia had to cancel its meeting owing to impassable roads.

Way's Mills is keeping on with its good work of inoculating children. The advisability of organizing a Parent-Teacher Association was discussed.

TIMELY TOPICS

by G. A. LeBaron

Venereal Disease. Last year, out of a group of persons questioned by the Canadian Institute of Public Affairs, 90% favoured giving more people more information about venereal disease, and making free medical examination possible. Of this group, 84% were in favour of giving blood tests before marriage. Canada's first National Venereal Disease Control Conference was held in July 1943. A four-force line of action was drawn up; the objective being the destruction of syphilis and gonorrhea.

(1) Welfare — social workers and agencies waging war on neglect, lack of food, overcrowding, etc.

(2) Legal force — giving the officials authority to bring to justice those who aid in organized prostitution.

(3) Moral force — Strengthening and upholding marriage and family life; pointing out the degradation of tolerated prostitution.

(4) Health — doctors, nurses, public health services, and medical science—

(a) to educate the public, that all may have knowledge of the causes, symptoms, treatment and prevention of syphilis and gonorrhea.

(b) to provide medical attention for those who need examination, care, and drugs.

(c) to abolish "quack" treatments — only bona fide members of the medical profession to attend V.D. sufferers.

(d) to make pre-natal blood tests to safeguard the unborn child.

(e) to make pre-marital examination and blood test —for prevention of spread of V.D. through marriage.

(f) to investigate "contacts" — that they may have the necessary care.

(Free literature may be obtained from the Health League.)

Health Insurance. This Spring revised plans for Health Insurance are being advanced which provide more assistance to the provinces from the federal funds. The Provincial Health Insurance Commission is responsible for the collection of a $12. registration fee from all individuals of sixteen years of age or over. Payment of this fee entitles the person and any children he may have — under sixteen years of age — to the benefits of the Health Insurance plan. An additional like fee must be paid for the wife's registration, and for other dependents of sixteen years of age or over. Persons failing to pay the registration fee will not be entitled to benefits.

First Aid and Home Nursing. Because of the urgency of the times — the scarcity of doctors' and nurses' services — the W.I. is asked to promote the organization of such classes. According to the programme submitted by the A.C.W.W., in the pamphlet "Reconstruction — Health," the most urgent needs of the postwar period will be First Aid and Food. Valuable service may be rendered by First Aid treatment.

The School. From time to time it may be necessary to bring to the attention of the school board certain matters essential to the well being of our school children e.g. proper surroundings re. lighting, heating, protection against accidents, security against immoral influences, etc.

There is a need for better understanding between parents and teachers. Parent Teacher Associations are a suggested remedy for this condition.

The Health Unit. Cooperation with the Health Unit personnel is important. The war has made inroads in their staff, causing disruption of routine. Replacement is slow, sometimes impossible without loss of time. The steady improvement in the health statistics of rural Quebec is the best evidence of the splendid work being accomplished by the Health Units.

Let it be our aim to pass on to the public all available information concerning inoculation and vaccination for the prevention of communicable diseases.

The "Sulfa Drugs" are increasing in numbers. Here are some of the members of the Sulfonamide family and their common uses:—

(1) Sulfanilamide—streptococcic infections.

(2) Sulfapyridine—when disease germs are unknown.

(3) Sulfathiazole—causes less nausea than sulfapyridine.

(4) Sulfamethylthiazole—staphylococcic infections.

(5) Sulfanilylguanidine—intestinal infections.

(6) Sulfadiazine—less toxic and distressing to patient.

These drugs, a part of the new science of chemotherapy, in the proper hands, represent the greatest medical advance of our times.

New Members. Some suggestions applying to the Welfare and Health department are:—

(1) A nursery system enabling mothers of small children to attend the regular W.I. meetings.

(2) Meetings might be arranged for hours when it would be convenient for such persons to attend.

(3) The programme should include subjects of interest to young mothers or mothers to be, e.g. children's problems, maternal and infant care, etc.

Women of Lithuania

by **M. Elizabeth McCurdy**

In no other country in the world can there be found women who occupy the position that those of Lithuania have done since time immemorial. In both ancient and modern history is found proof that in that country man struck a bargain with his womenfolk, and both became equal partners in the adventure of life. In the folk lore of the country there can be found no trace of the domination of one sex over the other. During the middle ages Lithuania emerged as a mighty empire in the Eastern part of Europe. In those times woman was looked upon in other nations of the world as a mere chattel, but in Lithuania she was the equal and companion of man in peace and war. Many examples are to be found where Lithuanian women at this period took on leadership in the defence of the country.

In more recent history the women of Lithuania played a more dramatic part; when the country lost its independence in the eighteenth century and came under the rule of Russia for forty years, the Lithuanians continued to prepare for the time of freedom for which they hoped by continuing the use of their own language, both spoken and written, the women being not only the wives and mothers, but the national teachers as well. In the farm house, besides her spinning-wheel, the Lithuanian woman taught her children to read and write in their own language, so that the nation might not be merged in the conquering country, and die, but might carry on.

1944 Top Priced Shorthorn Bull at Perth On His Way To Canada

Four thousand guineas (approximately $18,400) was the price paid for Uppermill Royal, a Scotch bred Shorthorn bull, destined for use in the Shorthorn herd at the Ontario Agricultural College, Guelph, Ontario. Prof. R. G. Knox, Head of the Animal Husbandry Department of that institution, made the selection at the Perth Show and Sale held in Scotland last February. The funds for the purchase of this bull were donated by several business men in Ontario who for the time wish to remain anonymous.

UPPERMILL ROYAL is sired by Aldie Conqueror, a bull rated as being one of the top breeding sires in Scotland to-day. The dam of the young bull is Roseleaf, and belongs to the Rosebud family; she is sired by Calrossie Sweepstake, a bull which stood second at Perth in 1939 and sired the 1942 supreme champion at Perth. Such noted bulls as Callrossie Control, Collynie Royal Leader and Calrossie Grand National are well to the fore in the young bull's pedigree.

For 550 guineas Professor Knox bought MILLHILLS BRIDAL ARCHER, a dark roan Shorthorn bull out of the celebrated Millhills herd. This bull is sired by Collynie Elect and carries some of the blood of the former Perth champion Millhills Ransom; the latter bull having been used with outstanding success in the Ontario Agricultural College herd. Millhills Bridal Archer will likewise be put into service at the Ontario Agricultural College.

N.S. Dairy Arbitration Board Abolished

The Nova Scotia Dairy Arbitration Board, corresponding to the milk control boards of other provinces, has been abolished by an Act of the Legislature of that province, transferring control of fluid milk business to the Public Utilities Board of that province. In only one other province — Alberta — does the fluid milk business come under control of the Public Utilities Commission. Other provinces have Milk Control Boards.

THINNING . . . *(Continued from page 2)*

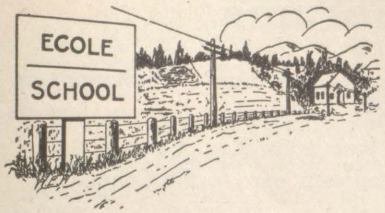
bud formation, increase vegetative growth and thus maintain the vitality of the tree. Thinning is relatively more necessary on mature trees making small annual growth, than on young vigorous trees of the same varieties.

When to Thin

As a rule apples should be thinned as soon after the last drop as possible, which usually occurs in Quebec districts about the second or third week in June. The last drop in June is the final natural thinning by the plant itself, and thereafter it is possible to tell how many fruit will stick and how much artificial thinning will be required. At the time when the work should be done, apples are usually about one-half to three-quarters of an inch in diameter depending upon the variety.

In general practice, not more than one apple should be left per spur and these fruits thinned to approximately 8 inches on the branches. Thinning is usually done by hand. In using this method the apple stem is grasped by the thumb and forefinger and the fruit is pushed off with the other fingers. In this way the pressure is put on the stem rather than on the spur. Care should be taken to throw the apples removed away from the tree, for if they are allowed to fall through the branches the remaining apples are liable to be bruised. Furthermore, care should be taken not to remove the stems from the spurs nor to break off the spurs from the branches.

Thinning costs are influenced by the spread and height of the trees, cost of labour, quality of labour, the size of the crop and other factors. In districts where thinning is a common practice the laborers become very proficient in doing the actual work and it is estimated that ordinarily it takes 1 man 2 to 3 hours to thin a heavy crop on the average mature tree. However, in Quebec apple growing districts thinning is not a very common practice, due to the fact that most varieties grown here, such as McIntosh, do not require much thinning. The result is that there are very few expert thinners available and therefore cost of thinning in all probability would be somewhat higher. It has been found in experimental work as well as by commercial growers that the cost of thinning is almost negligible. The apples must be picked at some time and thinning saves the cost of handling the culls at harvest time which should counter-balance the cost of thinning.



LIVING AND LEARNING

HANNA URGES FORUMS TO SUPPORT FEDERATION

Record Crowd of 300 Farm People Attends Annual Rally

"After only nine years of work, we have a stronger and better farm organization in Canada than I ever expected to see in my lifetime", said H. H. Hannam, president and General Manager of the Canadian Federation of Agriculture addressing the third Annual Rally of Quebec Farm Forums at Macdonald College, June 10th. "but" he added, "we must do better than we have done yet."

Appealing for general support to make the Federation the full voice of Canadian Farmers — he described the present organization as made up of provincial agricultural bodies and the national organization of the four main branches of Agriculture. In its membership it represents one-half of the farmers of Canada. Operating with a staff of only four people it has already served Canadian Agriculture well on the Advisory Committees to the Bacon Board, the Wheat Board and the Food Board. Through its support of the Farm Radio Forum it has contributed to the better understanding of farm problems and provided useful information and direction about the War effort. "But the organization needs improving and extending," said Mr. Hannam. "Other industries have more money and are using it to get what they want. That is not right and it is dangerous for democracy . . . If we have been exploited and starved by large corporations, let us not rail against the corporations but let us go out and organize, and think and plan together how agriculture may win its rightful place in the national economy." The Federation is asking this year a contribution of ten cents a member family.

Mr. Hannam was introduced to the gathering by Dr. W. H. Brittain who welcomed the large crowd to Macdonald College. Dr. Brittain said in part: "The movement that you represent is purely a farm movement, by farm people, for the benefit of those who live on farms. It is, therefore, a truly democratic movement and the inspiration animating it is one of self-help . . . For the Farm Forum has not been a mere "grouch" movement . . . Above all, it has not been a forum for political controversy; neither has it been concerned with intensifying sectional interests . . . On the contrary, it has been a constructive force. It has emphasized co-operation. It has constituted a platform on which all farm people could unite for the common good. It has enabled all of us to work together and with our government for furthering plans and policies useful alike in peace and war."

P. D. MacArthur, the president of Quebec Farm Forums presided at the business sessions. R. Alex Sim, the secretary, reported that 85 registered groups representing 600 farm families had taken part in the past season's programme. He outlined new directions for the Farm Forums and described a number of community enterprises which had arisen out of the Forum groups.

Resolutions were passed by the meeting in appreciation of the contribution of the CBC toward national unity: urging extension of rural electrification: and asking that careful advice and training be given to returned soldier settlers.

The following provincial council and executive for 1944-45 was elected:

Hon. Presidents: Hon. Adelard Godbout, W. H. Brittain, H. C. Bois.

President: P. D. MacArthur.

First Vice-President: Alan Crutchfield.

Second Vice-President: Stuart Armstrong.

County Representatives:
Wyman McKechine, Pontiac.
S. Armstrong, Argenteuil.
Alan Crutchfield, Huntingdon.
J. D. Lang, Chateauguay.
Murray Mason, Brome Missisquoi.
Claude Witcher, Ronville Shefford.
Reg Connor, Stanstead.
Mrs. Helen McElrea, Sherbrooke.
Ashton Stalker, Richmond.
J. D. Harrison, Compton.

Member at large: W. G. Macdougall, Lennoxville.

Spring Events for Farm Forums

Rallies are becoming annual events for Farm Forums. After the roads open up, after the regular broadcast series concludes, there is an urge to get together, to bring a group of Forums under one roof to exchange experiences and to enjoy a social time. This year the programs varied widely. Some were purely social. Some were all business.

At Shawville: All the groups were well represented, and Alex Sim and P. D. McArthur were the guest speakers. The meeting passed a resolution in appreciation of the CBC programs directed to farm people. Wyman Mackechnie was chairman and was re-elected Pontiac representative to the Quebec Council of Farm Forums.

Lachute: Combined entertainment with serious business. Songs, recitations, and piano selections were followed by talks by Mr. McArthur, Prof. Lattimer and Alex Sim. A resolution in support of the CBC was passed and forwarded to the local member of parliament and to the government committee. Stuart Armstrong, who was re-elected as Argenteuil County representative on the Quebec Council of Farm Forums, was chairman and the needs of the inner man were well looked after at the end of the evening in the Home Economics Department of the Lachute High School.

Lennoxville: The Sherbrooke County Forums met at the Experimental Farm for an afternoon. Ralph Staples, National Farm Forum Secretary, told the meeting about the progress of Farm Forums nationally. Mr. Staples had just returned from a trip to the Maritimes and was en route to Western Canada. Mr. J. A. Ste. Marie welcomed the group to the Farm, recalling that the Forums had held a similar field day at the Experimental Farm in 1941. J. H. Harrison was appointed Compton County representative, and Mrs. Donald McElrea, Sherbrooke County representative to the Council.

Granby: Here, Fordyce Corners, East Farnham, Abbotsford and South Roxton were the guest forums. Prof. Maw gave a talk on good poultry practices. Mrs. Sim outlined the services of the National Film Board Rural Circuits and the forums discussed the possibility of film showings in that district. Dancing brought the evening to a close.

Hurdman: Combined film showings with a talk by Mr. R. Kennedy and a dance. Mr. Allan Crutchfield was chairman.

Howick: The Farm Forums in the Howick area decided to abandon studies and "let joy be unconfined", for at least one night. It was a social.

Ayers Cliff: Under the chairmanship of Reg Connor, the Stanstead County groups gathered to consider numerous questions. Uppermost was the problem of organizing a committee which would adequately represent the problems of the farmers of the county. Resolutions on maple products and the CBC were passed for consideration at the Council Meeting, June 10th. Reg. Connor was re-elected Stanstead County representative to the Council.

Sutton: Foster, East Farnham, Abbotsford, Sutton and Fordyce Corner Forums met at Sutton. Plans were made for a farmers' picnic at Bond Lake late in June. Mrs. Windser, Murray Mason and Alex Sim spoke. The chairman was George Gorman.

CAMP MACDONALD NOTES

"In the good old summer time"

Pre-Camp Jaunt: 'Twas wonderful! A cedar lodge with a trail of small log cabins, Faith, Hope 'n Charity 'n the Wee Bit Housie . . . and an avenue of tents overlooking Lake Memphremagog. And a natural cathedral with pews hewn out of the cliffside and an altar of moss-covered rock, with silver birches for pillars. Violets, dandelions, trilliums 'n cobwebs 'n mosquitoes . . . ah, the good old summer time. Better dig down into your trunk for that bathing suit. Time to give it an airing . . . the date is August 26-Sept. 4.

From all across Canada they come: From distant Labrador, via airmail, from Miss Muriel Lutes, from the Ontario Library Association, from the National Film Board . . . "Reservations, please!"

Community Schools: The Quebec Council of Community Schools voted at their last executive meeting in Richmond that funds be raised which would make scholarships available in all the community schools of Quebec, so that each school might send at least one representative to Camp this year. Students are working a little harder now, with Camp Macdonald beckoning.

Food Makes Peace There is not now, and there never has been at any time in the world's history, enough to eat . . . But adequate amounts of the right kind of food for every one may in the long run do far more to promote international cooperation and to ensure peace than all the resounding and thunderous declarations about rights and liberties.

Dr. G. E. Britnell,
Economic Adviser to W.P.T.B.

Money for Peace — It has always seemed to me a curious fact that money is forthcoming in any quantity for a war, but that no nation has yet produced the money on the same scale to fight the evils of peace — poverty, lack of education, unemployment and ill health.

Lord Wavell.

CAMP MACDONALD
A School of Community Programmes

With summer just around the corner, thoughts of camp life fill the dreams of many warm June days. And Camp Macdonald, nestling in the heart of the Eastern Townships on the shore of Lake Memphremagog, is the Adult Education Service's contribution to a summer program which combines study with play.

What is Camp MacDonald?

Camp Macdonald is different. It is something which has arisen out of the needs of the people. In work and in play, it emphasizes the individual as working in the group, and from there, the greater idea of the group working in the community. The purpose of the Camp Macdonald Program is to train leaders.

It was in August, 1941 that the first Camp Macdonald program was held at Cedar Lodge — one short week-end for the leaders of community schools and farm forums in the Eastern Townships. There was accommodation for only seventy; 165 people turned out. They met as a group. No routine courses, no examinations, no formal lecturing took place. Rather, into an informal fellowship, each camper brought his problems. As they discussed each problem, as they exchanged opinions, ideas, and experiences, they realized that there was a sort of similarity in the questions asked by the group. What are the best methods? What materials do you use? How do you start a program in the community? How do you keep it going? How does a group work?

And thus, Camp Macdonald became a living thing, articulate and practical. Through active group participation, it was discovered that ideas and experiences, under fire of discussion, could crystallize into tangible plans for community programs. The very diversity of outlook, result of a heterogenous group — leaders all, and potential leaders also, from all walks of life — social workers, librarians, farm leaders, labor leaders, clergymen, teachers, group work and recreational leaders — added richness and excitement to the learning experience.

The Plan for 1944

The Adult Education Service is once again offering a School for Community Programs, dividing the activities into two general themes, "Group Work Methods" from August 19th to Aug. 26th, and "Community Organization Methods" from August 26th to Sept. 4th. The Camp of 1944 has developed beyond the expectations of the first week-end Camp of 1941.

Group Work Methods will deal with social, recreational and study groups, with emphasis placed on Film Forums, Citizens' Forums and Farm Forums. Special sessions using work-shop methods in recreation will be set up; study groups dealing with the principles of group work will be organized; source materials for group work will be made available.

At Camp Macdonald — 1943

Community Organization Methods will deal with problems and methods of mobilizing the resources of the community. In the course of study, a survey of Magog, an industrial and textile centre in Quebec, will be made under the direction of sociologists. Practical demonstrations will be given, and an opportunity will be provided to hold an "organization meeting" to set up a community council for a community with conditions and problems similar to those of Magog.

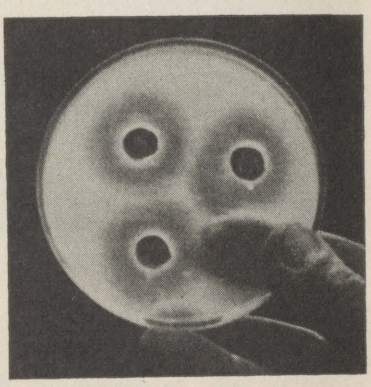
Emphasis will be placed upon community institutions, such as the library, the community school, the recreational centre. Fern Long, Ph.D., Director of the Cleveland Public Libraries, will be in charge of a special Institute in Community Organization for Librarians. This Institute will deal with thought-provoking questions such as the place of the library in the community, the ways and means of creating an outreaching of the library into the community, the technique of working with groups as differentiated from individuals, and the library's specific contribution to communities.

The Staff of Camp Macdonald includes Wilbur C. Hallenbeck, Ph.D., Administrator of Adult Education, Teachers College, Columbia University; Lois Fahs Timmins, Ph.D., Recreation Specialist; Joyce Plumptre Tyrrell, B.A., McGill School of Physical Education; Fern Long, Ph.D., Library Specialist; Cleveland Public Libraries; consultants from the National Film Board; the Canadian Broadcasting Corporation; the Faculty of Social Science, Laval University; Macdonald College Adult Education Service, McGill University; R. Alex Sim, M.A., Director of Camp Macdonald.

THE COLLEGE PAGE

Putting Moulds to Work

Much work has been and is constantly being done to discover commercial uses for what was always thought to be the waste portion of farm crops. To give just one example, the residue from the scutching of flax, which was formerly burned to get rid of it, is now eagerly sought by the building trade to be used as insulation, and it is also being chopped and sold for use as litter in poultry houses.



A culture of bacteria (cloudy portion). In the clear areas the bacteria have been killed by penicillin introduced in the centre of each dark circle.

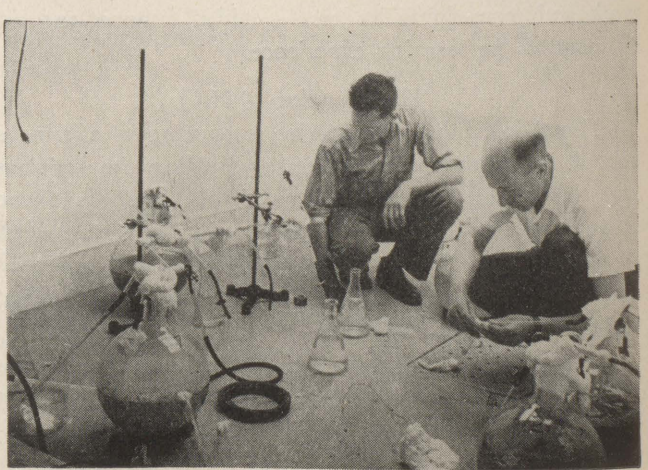
At the present time an interesting piece of research is being carried on at Macdonald College by two young scientists who are trying to find new and potentially valuable products that can be produced by the fermentation of agricultural products. They are also trying to discover strains or species of micro-organisms (bacteria and moulds) that will live on fermentation residues, and whose by-products will be valuable.

A substance which is much in the public eye these days, and which is a by-product of the growth of a mould, is penicillin, which is formed by a strain of the common green mould often found growing on rotten oranges. This mould, *Penicillium,* when grown under suitable conditions, produces a substance which has been named penicillin and which has the power of killing certain bacteria with which it comes in contact. This new substance has already become a potent weapon in the fight against disease. Penicillin is one of the products under study at the College, and other substances whose properties are being studied for similar reasons are butylene glycol, used in the manufacture of synthetic rubber, and citrinin, which can be prepared from a number of different moulds and which is also deadly to bacteria. So far, however, it cannot be used medicinally, since it becomes inactive when it comes in contact with blood. Some means of preserving its anti-bacterial action while in the human body must be found before it can be used against disease.

A number of problems must be studied and solved before these substances can be prepared in useful quantities. Different culture media must be tested to discover the ones on which the organism will grow best and produce its valuable by-products: conditions of temperature, moisture, etc. must be studied to find the most suitable combination of all conditions.

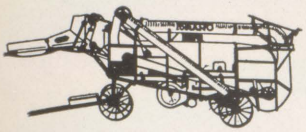
Penicillin is receiving most attention at the present time here. Working under a grant from the House of Seagram to the Department of Chemistry, Dr. David Siminovitch, formerly holder of a fellowship from the Royal Society of Canada, and Dr. F. S. Thatcher of the Department of Bacteriology are evolving methods for the rapid production of penicillin from agricultural commodities. At the same time they are working out "mass-production" methods for preparing the drug, for one of the chief hindrances to the widespread use of penicillin so far has been its high cost and relative scarcity, due to the fact that only small quantities can be produced at one time. By the use of large scale cultures and the development of efficient methods of handling, they hope to work out a method of commercial manufacture which will permit large quantities to be manufactured at a fraction of the present cost. They also hope to be able to adapt this drug to the treatment of diseases of livestock, of which mastitis is one example.

Other microorganisms are being studied at the same time in the hope that some other anti-bacterial substances similar in action to penicillin will be discovered, for, powerful as penicillin is in killing bacteria, there are some forms of disease germs against which it is powerless.



Experimental work on the production of pencillin.

FORANO FARM SPECIALTIES ARE RELIABLE

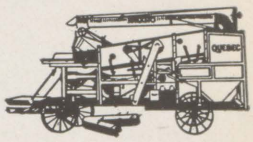


ALL-STEEL THRESHER

The Forano All-Steel Thresher is our pride, particularly good performance, quality and quantity; secondly, because it is a well built machine; thirdly, because it has a good appearance.

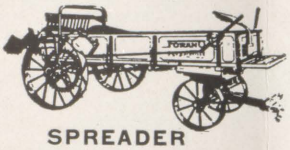
QUEBEC THRESHER

The Forano-Quebec Thresher is a well known machine, long appreciated for its simplicity, performance and low price; characterized by a patented screen made in two inversely operating parts — the only machine of its kind.



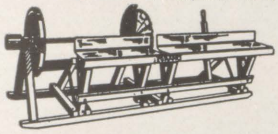
ROOT CUTTER

Forano Root Cutter can be driven by hand or motor. It is roller bearing mounted, rendering it easy to operate.



SPREADER

The Forano light weight and light draft Manure Spreader, with a capacity of 40 to 45 bushels, has a wide reputation for its performance with two medium weight horses. Maintenance cost is very low with a Forano Spreader.

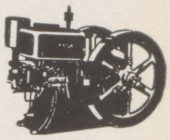


CORDWOOD SAW FRAME

Buy a Forano Cordwood Saw Frame. It is simple — heavy — well made and will last a lifetime.

MOTOR

The stationary Gasoline Engine is gradually regaining the confidence of the farmers because time has proved that slow speed stationary engines last a lifetime without trouble. The Forano is an old timer still on the job.



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A NEW YEAST

An entirely new food is being prepared in quantity to help feed starving peoples after the war. English scientists have developed a new form of yeast which is being grown in quantity in B.W.I. The dried yeast has a pleasant meaty flavour and 5% of it mixed in bread adds a food equivalent of 2½ eggs or 4 ounces of lean beef. It is a rich source of vitamins, particularly of the expensive B group, and in protein value one ounce is equivalent to that of 2 oz. cheese, 2 eggs, 1⅓ oz. soya flour or 1½ oz. dried milk. It is produced from molasses at a cost of 12 cents per pound.

SUBSCRIPTION FORM

Please send the Macdonald College Journal for two years to

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THE WARTIME PRICES AND TRADE BOARD

FARMERS' BULLETIN

FARM MACHINERY QUOTAS

Under the new quotas, the tonnage of farm machinery to be produced in Canada in 1945 will equal the 1940 and 1941 average. Production will be restricted to equipment listed as essential for Canada's foodstuff production. Heavy demand will necessitate continued rationing of some lines. Only essential demands can be met. There will be no restriction of the manufacture of repair parts.

Schedules are set for sales of imported equipment, based on the 1940 and 1941 average. The new quotas become effective beginning July 1, 1944, but little new equipment will be available before January, 1945.

The quotas are set for

(a) the Prairie Provinces;

(b) Eastern Canada and British Columbia.

The following have been added to the list of items which are **not** rationed: Diamond harrow sections, flexible harrow sections and spring tooth harrow sections; cream separators; power sheep shearing machines and animal clippers; egg cleaners and brushes.

CEILING PRICES FOR NEW POTATOES

Order No. A-1207 Effective from May 25, 1944.

This order applies to domestic and imported potatoes grown in 1944 and sold between May 25 and August 31, 1944, inclusive. All grades and varieties are included, except sweet potatoes and yams. No charge may be made for a container if the sum of the sale price and the charge for the container exceeds the maximum price.

Following are maximum prices for sales of new potatoes by shippers to various classes of buyers, delivered at Harrow, Ont., or at Vancouver, B.C.:—

		May 25 to July 15	July 16 to July 29	July 30 to Aug. 12	Aug. 13 to Aug. 31
Wholesale distributors	100-lb. bag	$3.75	$3.50	$3.25	$3.00
Persons who buy in carload lots	75-lb. bag	2.81	2.63	2.44	2.25
Retailer operating central warehouse separate from his retail outlet or outlets who takes delivery at such warehouse	15-lb. bask.	.61	.57	.53	.50
	10-lb. bask.	.41	.38	.36	.33
Consumers	100-lb. bag	4.35	4.10	3.85	3.60
	75-lb. bag	3.26	3.08	2.89	2.70
	15-lb. bask.	.72	.68	.64	.61
	10-lb. bask.	.48	.45	.43	.40
All other buyers	100-lb. bag	3.95	3.70	3.45	3.20
	75-lb. bag	2.96	2.78	2.59	2.40
	15-lb. bask.	.64	.60	.56	.53
	10-lb. bask.	.43	.40	.38	.35

Maximum price at any distributing centre other than Harrow or Vancouver is calculated on the basis of the above schedule, plus the normal cost of transporting potatoes in carload lots to that distributing centre from Harrow or Vancouver, whichever cost is the lower, but not exceeding 40 cents per 100 lbs.

Maximum price delivered at any other point shall be the price for nearest distributing centre plus the cost of transporting potatoes by freight in less than carload lots from such distributing centre to point of delivery.

A shipper may price his new potatoes f.o.b. his farm or shipping point and in that event his maximum price shall be reduced by an amount to cover the cost of transportation from his farm or shipping point to the point of delivery to the buyer.

DEFATTING OF BEEF CARCASSES

Order No. 392—Now in Effect

For better enforcement of defatting regulations, a new order makes it compulsory to remove kidneys and fats from beef carcasses at time of slaughtering. This order does not apply to farmers who slaughter on their own premises for their own consumption or for meat intended for a beef ring, if no direct sales are involved. Farmers slaughtering for sale of meat must comply with the new regulations.

TRUCKING UNPROCESSED, UNBOTTLED, MILK, CREAM

General Permit Under Order No. A-533—Now Withdrawn

Commencing May 1, 1944, those engaged in milk or cream collections by motor truck anywhere in Canada must have a specific permit from the Wartime Prices and Trade Board. Withdrawal of the general permit does not in any way affect the specific permits already issued. This order does not apply to a farmer using his own truck to transport milk or cream produced on a farm he owns or operates. A farmer requires a specific permit to truck unprocessed or unbottled milk or cream produced on any other person's farm.

Primary purpose of the new order is to conserve trucking equipment, gasoline and tires, with full regard to the interest of milk and cream producers. Applications for specific permits to take over existing routes for the collection of unprocessed and unbottled milk and cream may be made to any Regional Office of the Board.

USE UP 1943 POTATO CROP FIRST

To assist in marketing the remainder of last year's potato crop, no imports of potatoes will be authorized while good quality 1943 stocks are available in sufficient quantities.

Under Order No. 929, storage charges may be added to the ceiling prices of table stock potatoes in each zone at designated periods. Total storage charges which may be added for the period up to May 31 are 40 cents per 75-lb. container; 52 cents per 100-lb. container. The last storage increase will be effective on June 1, bringing the total to that date up to 50 cents per 75-lb. container and 65 cents per 100-lb. container.

BUTTER COUPON VALIDITY DATES

Starting on May 18 with butter coupons 62 and 63, the Ration Administration reverted to the former system under which two butter coupons become due every second week. But, because it was necessary to reduce the butter ration temporarily by postponing the coupon which would have become good on June 1, the pound of butter bought with these coupons has to last until June 8 when coupons 64 and 65 become valid. Information on coupon expiry dates is provided regularly through the Ration Administration to farmers collecting coupons against butter sales for return to the Local Ration Board. Farmers who produce butter, whether for sale or for personal use on the farm, are required to register with their Local Ration Board as butter producers.

For further details of any of the above orders apply to the nearest office of the Wartime Prices and Trade Board